



# A world without play: A literature review



A literature review on the effects  
of a lack of play on children's lives

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# Introduction

**This report is part of a wider enquiry conducted by Play England and the British Toy & Hobby Association (BTHA) for the *Make Time to Play* Campaign, on the impact of play deprivation on children, families and communities. This body of research will inform a campaign around the concept of “A World Without Play”.**

Play is fundamental to the enjoyment of childhood, and evidence also shows that it is essential to children’s health, well-being and future life chances. Obesity, rickets and attention deficit disorder are just some of the growing problems in children that health experts have linked to a lack of particular forms of play, and research also shows a clear link between play and learning. This literature review summarises recent evidence and thinking into the benefits of children’s play and the impact that children not playing can have individually and for the communities in which they live.

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# Summary

**Defining play has been problematic (Power, 2000) but an attempt to distil the essence of play into a statement is perhaps best expressed as through the Playwork Principles (Play Wales, 2005):**

'All children and young people need to play. The impulse to play is innate. Play is a biological, psychological and social necessity, and is fundamental to the healthy development and well being of individuals and communities.'

The 'principles' then go on to accentuate the notions of the vital and innate nature of play:

'Play is a process that is freely chosen, personally directed and intrinsically motivated. That is, children and young people determine and control the content and intent of their play, by following their own instincts, ideas and interests, in their own way for their own reasons.'

This review of the literature clearly demonstrates that play is key to physical, mental and social wellbeing, but has been 'overlooked' in many areas. Play may be viewed as an 'unaffordable luxury' in modern society, and instead children attend more organised activities which are thought to be more educational. Whilst playing, children can experience real emotions, create their own uncertainty, experience the unexpected, respond to new situations and adapt to a wide variety of situations. Play enables children to form friendships and attachments to adults and to places, allowing for the development of familiarity and intimacy with both. It can provide opportunities for independent learning and building confidence, resilience, self-esteem and self-efficacy (Lester and Russell 2008; NICE 2010; Coalter and Taylor 2001). Play between parents and their children can strengthen their bond and relationship and parents playing with young children can help children's development – indeed active involvement of parents in their children's play might be one example of a 'positive parenting skill' which could be critical in the early development of children's positive behaviours (Gardner and Ward 2000). Playing with toys can be pivotal to a child's development and toys that children enjoy playing with at different ages can assist in specific areas of development for example cognitive and language development. Outdoor play has obvious benefits for increasing levels of physical activity, but can also have positive influences on other areas of a child's wellbeing and development including the opportunity to develop an understanding and respect for the natural world. Playtime at school could offer children a unique opportunity to advance their interacting skills and social cognitive recourses through informal self-directed play. However, playtime may have decreased by as much as 50 per cent since the 1970s. Children and others in the local community benefit from children playing outside in their neighbourhoods as (amongst numerous benefits) it fosters positive social relationships for children and adults alike, improves perceptions of children as being valuable to a community and increases children's propensity to act and think positively towards their local neighbourhood.

The evidence highlighted in this review confirms that it is important to allow children every opportunity to play as this can only benefit their physical and mental health, wellbeing, and social and emotional development, as well as being an invaluable part of family life and communities.

# Section 1: Play and children's well-being

**'It is widely understood that play is crucial to children's healthy development and quality of life' (Foley 2008 p.6).**

In 2007 a UNICEF report on the well-being of children around the world, ranked the UK at the bottom of the world's 21 richest countries. For all six parameters: material well-being, health and safety, educational well-being, family and peer relationships, behaviour and risks and subjective well-being, the UK was amongst the bottom five countries (UNICEF 2007). Since then there has been considerable debate in the UK about ways in which the childhoods of children might be enhanced. This Highlight discusses the contribution of play, to children's well-being, development and health.

The freedom and autonomy of play allows children 'to develop and demonstrate a sense of themselves' and to meet their need for 'the peace of a long, slow-paced, active and engaged childhood' (Jenkinson p.84). As children grow their play increases in social, physical and cognitive complexity, reflecting their interests and abilities (Wood 2007). They value highly the short spaces and times they are free to play within and nearby their homes (Mayall, B 2007).

The concept of well-being is multi-dimensional, encompassing physical, emotional and social well-being and focusing on children's immediate as well as their future lives (Statham 2010; Saunders 1997: cited in Chambers 2002). Other factors used to discuss children's well-being in the UK and other Western societies, include the concepts of need, rights, poverty, quality of life and social exclusion (Axford 2008). Children's definition of 'happiness' is strongly associated with 'doing what you want when you want to', 'getting what you want', or 'something unexpected, out of the ordinary happening' and is therefore seen as a temporary state (Counterpoint 2008).

There is considerable evidence to show that there is an important role for play in children's physical, emotional and psychological well-being (Lester and Russell 2008).

## Section 2: Play and children's development

**'Without play, a child's ability to develop and function effectively in the world is at best impaired and at worst as good as impossible' (Hubbuck 2009, p127).**

Play is an essential part of normal childhood development and helps to develop a child's co-ordination, strength and social skills (Bird 2007). When children play they are emotionally and physically involved in what they are doing, using all their senses (Jenkinson 2005). Through play they can learn to negotiate, take risks and overcome obstacles, develop friendships and a sense of belonging to a group.

Benefits of play are both immediate and long-term and contribute to all aspects of children's health and development including their physical and mental well-being, their educational development, brain development, opportunities for language development, spatial and mathematical learning, creativity, and the formation of identity (Coalter and Taylor 2001; Wood 2007; Zigler and Bishop-Josef 2009). It provides a place to 'experiment with the acquisition of new skills, the complexity of relationships, taking risks, and thinking about complicated ideas' (Hubbuck 2009, p128).

Play theorist Brian Sutton-Smith, in his book *The Ambiguity of Play* (1997), believes that the human child is born with enormous brain potential, which if not used will die: 'Not only are children developing the neurological foundations that will enable problem solving, language and creativity, they are also learning while they are playing. They are learning how to relate to others, how to calibrate their muscles and bodies and how to think in abstract terms. Through their play children learn how to learn. What is acquired through play is not specific information but a general mind set towards solving problems that includes both abstraction and combinatorial flexibility where children string bits of behaviour together to form novel solutions to problems requiring the restructuring of thought or action'.

Playing appears to create new neural and chemical reactions in the brain which support the development of the brain's capacity to link motivation, emotion and reward and coordinate the systems for perception, movement and thought (Lester and Russell 2008). 'What play does is to create a sense that for the time of playing, life is worth living, and that motivates children to play more, creating further opportunities for these benefits to accrue' (Lester and Russell 2008 p20: quoting Sutton-Smith).

Children play with toys only for enjoyment and indeed many everyday or household objects are as appealing to a child as purpose-built toys. Toys that are well-designed can aid the development of hand-eye coordination, communication and language skills, agility and balance, and stimulate creativity and imagination (Community Practitioner, 2000).

Children's play opportunities in early and later childhood can contribute to their overall development and life chances. Pretty and others (2009) suggest that children who are active as toddlers and grow up enjoying physically active play, especially in natural environments, may be setting off on a life path to better health and a longer life than those who are sedentary from early childhood. Play involving arts, craft and design gives children the opportunity to develop the fine motor skills of hand and finger control, required for hand-writing (Lindon 2007).

## Section 3: Play and social development

**Time spent playing is the natural arena for forming friendships, finding soul-mates and negotiating relationships' (Casey 2010 pxi).**

Parents directly affect the behaviour of their young children when they engage the children in play. When playing with parents, infants' and toddlers' behaviour is more complex, more conventional, of longer duration, and more symbolic than when playing with peers, siblings, or alone. When parents play with infants and young children, the complexity of children's behaviour increases substantially both in the duration of the social interactions and in the developmental level of children's social behaviour (Power, 2000). Researchers at Germany's University of Regensburg conducted a longitudinal study of fathers' specific contribution to their children's attachment at ages 6, 10, and 16 years (Grossmann 2002). In toddlerhood, the more active fathers' involvement in their children's play, the greater was the child's attachment at age 10 to their parents. The results confirm that fathers' play sensitivity is a good predictor of the child's long-term attachment. In addition, fathers are more likely than mothers to initiate physically active play with their children (Grossmann and others, 2002) and it is suggested that father-child rough-and-tumble play fosters the development of the competition skills in children without using aggression (Paquette, et al 2003). Parent-child play is also associated with children's social competence. In one study, time spent in parent-child play was followed by improvement in conduct problems among 4-year-olds (Gardner & others. 2003). In another, it was observed that when parent-child interaction is mutually responsive during both pretence and physical play, it is associated with children's social competence (Lindsey & Mize. 2000).

The extent to which children feel part of a group or part of their local community, is influenced by their opportunities to play with other children. When children play they use their own language, rules and values and being part of group play helps them develop their own identities (Casey 2010). Children who are able to play freely with their peers develop skills for seeing things through another person's point-of-view, for co-operating, helping, sharing, and solving problems (Open University). Traumatized children who lose their ability for creative play do not have full access to their problem-solving capabilities, which can make social situations difficult for them (Lovett 2009). Fantasy play allows children to work through conflict and painful feelings. In play children learn how and when to express or control their emotions, for example when play fighting, children require a good deal of self-control and restraint, serving as practice for exercising restraint in more serious contexts (Power, 2000; Galyer & Evans, 2001).



The act of playing can overcome cultural and other boundaries and help children to understand others who they might consider to be different from themselves (Lester and Russell 2008). Ensuring that disabled children have access to and are supported in using play spaces is important for them and for their families. Children playing together, with their parents meeting and talking to other parents, helps to foster community relations and friendships. It can reduce the isolation many disabled children and their families experience (Dunn 2004).

Different types of play support different types of relationship development. For example pretend play, role play and rough and tumble play allow children to form 'highly sophisticated attachment systems' at an age when friendships are becoming increasingly important (Lester and Russell 2008, p21). Role play, construction and 'little world play' (e.g. farmyard figures) can contribute towards increasing imagination and also understanding of the self and the world – children can act out situations to help make sense of them. As children get older (aged 2-4 onwards) role play and team games increase cooperation and communication skills and help develop a sense of self and a sense of belonging. Interacting with children through play helps build and maintain relationships between adults and children (Ginsburg 2007) and active involvement of parents in their children's play might be one example of a 'positive parenting skill' which could be critical in the early development of children's positive behaviours (Gardner and Ward 2000). Play also offers an ideal opportunity for parents to engage fully with their children, but despite the benefits derived from play for both children and parents, time for free play has been markedly reduced for some children (Ginsburg, 2007).

## Section 4: Play and emotional development

**Through play children express and work out emotional aspects of everyday experiences, exploring their feelings and finding ways of expressing themselves (Open University).**

The complex nature of play makes it central to children's developing resilience as they grow up. Lindon defines resilience as 'an outlook for children and young people characterised by the willingness to confront challenges, with a sense of confidence that it is possible to deal with setbacks.' (Lindon 2007, p7). The creativity required and developed in play, the use of imagination and finding one's own solutions to problems, both real and imagined, all help children to develop ways of reacting to a wide range of situations (Lester and Russell 2008).

Children's ability to cope with difficult situations and to recover from, or adapt to, adversity whilst playing, can help them to develop strategies for reacting to real situations (Lester and Russell 2008). Empathy and imaginary play allow children to learn about the feelings of others and imagine themselves in different situations. Boys with imaginary friends have been shown to have lower levels of aggression, feel happier, have more positive attitudes, and experience less fear and anxiety during later play situations and girls have been shown to be less likely to be angry, fearful and sad in their play (cited in Jenkinson, p78).



## Section 5: Play and mental health

**Playful children are happier, better adjusted, more co-operative, and more popular with their peers than those who play less.**

As Singer (1994) states: 'Children play longer when a wide variety of toys is available. Playful children are more physically active, creative, humorous, imaginative, emotionally expressive, curious and communicative'.

Play in early childhood allows children to give voice to their experiences and to have a safe place to express confusing and painful feelings, and to find ways of overcoming emotional traumas (Hirschland 2009). Martin Seligman, past president of the American Psychological Association and author of *Authentic Happiness*, says that the three pillars of mental health are love, work, and play.

Evidence shows this may be enhanced when children play in natural environments (Croucher 2008). Contact with nature appears to have a positive effect on recovery from stress and attention fatigue and on mood, concentration, self-discipline and physiological stress (HC Netherlands 2004). Some preliminary research has also shown that woodland can provide a sanctuary for both rural and urban children and reduce self-reported stress. Spending time in the natural environment is important in creating a sense of belonging and identity, which in turn improves mental health (Bird 2007).

Prescriptions for drugs to control Attention Deficit Disorder Syndrome (ADHD) in the UK have increased greatly in recent years, by perhaps as much as eightfold according to some sources (Hansard 2007, cited in Conservative Party 2008). Kuo and Taylor (2004) found that children who were identified with ADHD showed signs of reduced symptoms after spending time in green spaces, specifically access to natural settings for after school and weekend activities may be effective in reducing ADHD. Indeed Taylor et al (2001) found whilst studying children with ADHD, the greener a child's play area, the less severe were the attention deficit symptoms.



## Section 6: Play and physical development

**'Opportunities for spontaneous play may be the only requirement that young children need to increase their physical activity.' Dietz (2001).**

Physical activity in childhood is important for many reasons and a variety of sources indicate a direct relationship between physical activity and children's health (Hope 2007). In early childhood physical exercise helps build strong bones, muscle strength and lung capacity (Lindon 2007). It may also increase cognitive function, improve academic achievement and accelerate neuro-cognitive processing. In addition it appears that active children are also less likely to smoke, to abuse alcohol or take illegal drugs as they grow up (BHF 2009). It also seems that exercise breeds exercise and children in the East of England who cycle to school have been found to be much more active at other times and are aerobically fitter. There is also a suggestion that across England, children in rural areas may be more active than other children (Pretty 2009).

A Community Practitioner article from 2000 explains how playing with toys is pivotal to a child's physical development and that toys that children enjoy playing with at different ages can assist in specific areas of physical development. For example, between three to six months a baby will start to reach, grasp and explore objects and handling suitable toys will help hand-eye coordination and fine motor control. From the age of six to eight months, a baby will be increasingly on the move and developing manual dexterity so toys that roll or move easily will encourage a baby to reach out and go after them helping to develop gross motor skills. During the second year playing with toys that can be pushed or pulled helps walking and balance. Opportunities to use and improve manipulative skills are important at this age so playing with toys that allow fingers and hands to twist, screw, turn and open is beneficial. By the age of two, a child will have much more finely controlled hand movements and will, for example, enjoy building and constructing with toys and playing with simple jigsaws.

Several studies have shown that play is good for developing motor function and most infants and toddlers acquire fundamental movement skills through unstructured physical activity and play. Children who lack proficient motor skills often choose not to participate in physical activities as they get older and as games become more competitive (in Low Deiner and Qiu 2007: quoting Graham 2005). Better motor function has also been found to lead to fewer accidents (HC Netherlands 2004).

Fun and enjoyment are the greatest motivators for physical activity and, whilst children see health reasons as important, they are more attracted by 'unhealthy' activities if they are more fun than 'healthier' activities (Hemmings 2007). Young children are innately active, but this natural tendency is easily overridden by external constraints, including adult supervision (Jebb 2007).

Parents also have a strong influence on their children's activity levels. If parents understand the importance of physical activity to their children's health and are involved with their children in some physical activity, this not only encourages their children to be more active but can also enhance parent-child communication and social interactions among family members (Thompson et al, 2010).

Active play is the most common type of physical activity children take part in outside school and outdoor and unstructured play may be one of the best forms of physical activity for children (BHF 2009; Mackett and Paskins 2008).

Allowing toddlers the opportunity for active play and encouraging walking activity as part of the daily routine are important in preventing obesity. Children who sleep fewer hours a day are more at risk of obesity and active children tend to sleep longer (Milano 2007: quoting Taheri 2006). However, research into effective interventions for obesity is complex and although individually each factor may make only a small contribution to weight gain, the potential synergies may underestimate the true effect. For example physical activity may play a greater role in weight control than indicated by its contribution to energy expenditure (Jebb 2007, p11).

Children's activity levels are related to gender, family patterns and outdoor play. Boys are more active than girls; children whose parents participate in physical activity with them are more active and children who spend more time in outdoor play spaces are more active (BHF 2009; Biddle et al, 2007).

There is also evidence that older children and teenagers view the outdoors as the most important environment for physically active play (Open Space, 2006), and that children who go out without adult supervision are likely to be more physically active than those who are with adults (Mackett 2007).

Children get much of their physical exercise at school and play times can be important for this, especially during the longer breaks (Fairclough 2008). Although children are more active during longer breaks it has been found that the longer they played the less active they became. Children were more active when playing ballgames, had free access to non-fixed equipment and where there were suitable markings on the ground. When teachers were managing or observing in the playground children's activity was reduced (Parrish 2009).



# Section 7: Play and cognitive development

**'Play is our need to adapt the world to ourselves and create new learning experiences.'** (Elkind 2007, p3).

Piaget and Vygotsky, two of the most influential 20th century theorists of cognitive development, both emphasised the essential role of play in children's development. According to Piaget play provides children with extensive opportunities to interact with materials in the environment and construct their own knowledge of the world, making play one of the most important elements of cognitive development (Zigler 2009). Play influences neurological development and determines how intricate neural circuits are wired. Amongst other research, positron-emission tomography scans of Romanian orphans with play deprivation indicate that play is as essential to human development as other basic needs (Begley, 1997).

Lester and Russell argue that the main contribution of play to learning is to help children understand the links between motivation, emotion and reward, allowing them to coordinate their feelings, thoughts and behaviour and experience the feeling of learning (Lester and Russell 2008). Others claim that, through playing, children learn vocabulary, concepts, problem solving, self-confidence, motivation, and an awareness of the needs of others (Zigler 2009). Constructive and imaginative play has been identified as most important for cognitive development (HC Netherlands 2004).

In early childhood it is important to support and encourage self-directed play activities even if these appear meaningless to adults. They are not random and are linked to the child's mental ability. Allowing a child time and freedom to complete these activities to their own satisfaction supports the child's ability to concentrate (Elkind 2007). Elardo and others (1975) showed that the availability of toys in infancy was related to the child's IQ at 3 years of age. Children with access to a variety of toys are found to reach higher levels of intellectual achievement, regardless of the children's sex, race, or social class. Play reduces the tension that often comes with having to achieve or needing to learn and in play adults do not interfere and children relax. In school settings play helps children adjust to new surroundings as well as giving them a basis for extending their learning (Ginsburg 2007).

Marjanovic -Umek & Lesnik-Musek (2001) compared three age groups of children in preschool settings to investigate the links between symbolic play and cognitive and language development. They found that the level and complexity of children's symbolic play depended on both play materials and the play context.

Smilansky (1968) proposes a thesis that social-fantasy activities influence the development of the child's cognitive and social skills. Role enactment, the highest form of symbolic play, encompasses two types of cognitive operation which are necessary for conservation, namely reversibility and decentration (Rubin, 1980). Reversibility in this context means the child's awareness that he or she can come back from the role into reality at any time. Decentration is about the child's understanding that the child in the play is still really her/him and, at the same time, the person whose role s/he is playing.

Smilansky (1968) noted a progressive development in the use of toys and objects. The first stage comprises simple toy manipulation and is followed by the stage of imitating the activities of adults, when the child uses miniature replicas of objects in the same way that adults do. It is not until the next, third, stage that toys become instruments for enacting certain roles (there remains a clear connection between the imitative use of the toy and role enactment); at the fourth stage, use of toys is complemented by speech and gestures (this is not play with realistic toys, but with mainly unstructured materials). The last, fifth, stage focuses on speech and, as a rule, the child uses neither toys nor gestures.

Symbolic play is also important for language comprehension. As Pellegrini and Galda (1982) state, the symbolic elements of fantasy play, like role and object transformations, enable the child to use lexicographic meanings and explicit speech.

A Community Practitioner article (2000) highlights that by 15 to 18 months symbolic or imaginative play is beginning and therefore it is important to encourage imitative play through toys such as tea sets and pretend cooking utensils.

The Marjanovic -Umek & Lesnik-Musek (2001) study confirmed the findings of several other studies (Elder & Pederson, 1978; Giddings cited in McLoyd, 1986) which show that younger children need structured play materials for symbolic play since unstructured materials offer them more limited opportunities to represent their ideas in play. Unstructured play materials can, however, provide more flexible play contexts for preschool children who are more skilled at representing ideas in play. They go on to say that the complexity of children's symbolic play depends on the context of play or the play situation and that, irrespective of their age, children played in different ways in different play situations. Different play situations encourage and emphasise different elements of symbolic play and thus support different areas of children's development to varying extents. Marjanovic -Umek & Lesnik-Musek (2001) conclude by suggesting that preschool teachers should know which types of play materials (structured, unstructured or combinations of both) are most appropriate for children at different ages and they should know how to arrange playrooms in order to encourage developmentally appropriate symbolic play. Preschool teachers should also be aware that different contexts of play are needed to encourage the development of children's representation, social interaction and communication skills.



## Section 8: Play and the community

**For many years, research findings have demonstrated the value and importance of community play to children's well-being.**

This was recognised in the 1960s when Mead (cited in Blakely: 1994) pointed out that neighbourhoods provide vital opportunities for children to explore their environments without adult direction and learn life lessons about the 'familiar' and the 'strange'. Mathews (2003, cited in Spilsbury: 2005) who investigated public space in relation to 9- to 16-year-old children suggested that public space acts as a 'liminal' or in between setting, in the right of passage from childhood to adulthood.

It is now widely believed that playing outdoors is important for children to maintain a sense of community. For adults too, children's play can help to build good social networks, as it provides them with opportunities to interact with one another at places children play. Research from Switzerland show a positive correlation between outdoor play and good social networks (cited in Conservative Party: 2008). Similarly, Worpole and Knox (2007) found that public space is highly valued for socialising opportunities and developing community ties. For children specifically, public space allows them to build friendships and learn rules of social life. Public space is also cited as an important play arena, whether on the streets or in more secluded areas.

Prezza and Pacilli (2007, cited in Lester and Russell: 2008) state that 'autonomy and play in public areas during childhood influences more intense neighbourhood relations, a strong sense of community and less fear of crime and, in turn, these later variables consequently reduce feelings of loneliness during adolescence'.

In the report *No Ball Games Here*, the charity Living Streets provides evidence that the decline in use of the street and public space has led to poor neighbourhood relations. Their 2009 study found that 72 per cent of respondents aged 65 and over stated that, when they had a young family, they knew at least five of their neighbours well enough to engage in conversation. Of today's parents, more than a quarter knew less than two of their neighbours. Children's presence in public space seems to have declined dramatically in recent decades. Spilsbury (2005) argues that public space in the USA has come to be recognised as adult space, an argument mirrored in the UK. Children are unwelcome in the community because of the perceived dangers the world presents to them. According to Spilsbury, high profile cases about child abduction or 'out of control' young people have led to 'moral panic', responded to by keeping children away from the public realm. Spilsbury blames the media's sensationalism of rare murder and abduction cases, which distract attention away from realistic threats, such as poverty.

By comparing the views of parents today with previous generations, the charity Living Streets documented changes in the community and the impact of this on children's presence in the local area (Living Streets: 2009). Supporting the findings of previous research (Prezza et al: 2007, cited in Lester and Russell: 2008; Hillman et al: 1990), Living Streets' study suggests that street play has decreased dramatically over time, with only 12 per cent of the

65 and older group claiming that they never played out as children, and almost half of today's children saying they never play out. Playday 2007 research also documented a decline in street play showing that, while 71 per cent of adults reported playing in the streets or areas near to their home everyday when they were children, only 21 per cent of children now claim to do so. Living Streets report that parents are reluctant to allow their children out due to the perceived dangers. According to the 2006 Children's Society research, 43 per cent of adults felt that children should not be allowed out unsupervised under the age of 14 and 22 per cent thought children should not venture out alone until they are 16 (cited in Living Streets: 2009). Brown et al (2008) identified clear gender differences in children's relationship to their local environments. Their research, using a multi-method approach to examine mobility patterns of children in Hertfordshire and Lewisham, highlights how boys tended to be allowed out more than their female counterparts. Parents were more inclined to allow their daughters out if they were with peers or if they were going out for more focused activities (for example, to play games rather than simply 'go for a walk'). While boys played out most days, the results show that it was rare for girls to do so. It was even rarer for girls to play outside beyond sight of their home.

Not only this, but boys tended to travel on foot more than girls, who were more likely to use public transport or travel by car. In fact, girls were found to travel further distances than boys in order to see friends and visit shops. The findings suggest that girls prioritise their friendships, while boys have a more direct relationship with the physical environment. Shopping centres offer girls a place to meet and socialise, while maintaining a level of freedom. Brown et al argue that, although girls are less present in the local community, they do utilise other space in ways that suits them (Brown et al: 2008).

Brown et al also found that friendship and children's mobility in the area were strongly associated; the more friends that children had, the more independence they acquired. The fact that boys spent more time in the local community is largely because they had more friends and more friends who lived close to them, while girls' friendship networks were more widely spread.

Brown et al (2008) point out the influence of parental social interaction on children's use of public space. They note that the boundaries parents set for their children is to some extent dependent on the behaviour of other parents and this can sometimes lead to gender differences. For example, if one or two parents are particularly protective of their daughters then others seem to follow. Mothers were more inclined to allow their children out to play if they were taking part in a specific activity or game, rather than simply 'hanging around'. With a strong connection to football for many boys, this meant that boys were more frequently out playing in the local community.

Concerns about children in public space have seemingly contributed to the decline of community play in the USA as well as in the UK. An investigation into young people's different behaviours and sense of community notes that, due to their restricted independent mobility within the local neighbourhood, children had few opportunities to build friendship networks.

Parents appear to adopt a number of strategies to protect their children from the perceived danger of violence in the neighbourhood; this includes enforcing curfews, accompanying children around the neighbourhood or restricting their free play and mobility in the local area. A study from the USA shows that of 482 parents from disadvantaged communities, nearly half reported that they kept their children in as much as possible (Fursterberg et al 1999 cited in Spilburg: 2005). Similarly, Outley and Floyd (cited in Spilburg: 2005) note that 10 and

11 year olds living in a socially isolated area in Houston, US have restrictions imposed on them and found that this constrained children's participation and exploration of the local play and leisure facilities.

A study by Mathews (2003, cited in Morrow 2006) with children aged 10-14 in Northamptonshire uncovered that girls also tend to be more afraid of public space than boys. When boys did express fears over their well-being they tended to identify traffic as their primary concern; while girls highlighted their fear of strangers, youth gangs or being attacked. Petrie (2000 cited in Morrow: 2006) points out how over-protective attitudes towards females mean that these children lack secure friendship circles preventing them from using the public realm. This is not to say that boys do not feel vulnerable in their neighbourhoods. However, gender seems to be only one factor that affects children's experiences in public space.

In January 2008, the Conservative Party published *More Ball Games*, part of its Childhood Review, which argued that changes in the outside world have driven children away from public space and impacts their health and well-being (Conservative Party: 2008). The report suggests that parents should not be blamed for this and that parents are, in fact, spending more time with their children than ever before. According to statistics from Egerton and Gershuny's time use survey (2004 cited in Conservative Party: 2008), parents were spending an average of 99 minutes per day with their children compared with just 25 minutes in the mid 1970's.

Iwrin et al (2007) provide further evidence of distrust amongst members of the community. They found that the majority of parents characterised their neighbourhood as unsafe and felt that their local neighbours could not be trusted to look after their children. This lack of trust drove children away from the community spaces because adults chose indoor activities for their children rather than outdoor play. These views were mirrored in the children's perspectives, many of them expressing their anxiety about their safety in the local neighbourhood, particularly in relation to 'stranger danger', and this prevented them from playing outside.

Elsley (2004) contends that three issues must be addressed in order to increase the contribution of young people in public space. Firstly, methods must be used to ensure children's active participation in everyday practice (including participatory activities by seeking and providing information to engage in formal structures or organisations); this should be monitored by national agencies as an indication of good community participation. Secondly, more consideration should be put into planning and development policy aimed at improving the public realm for young people, by noting how children wish to use public space. This should take into consideration children's age related needs and the diversity of children's experiences. Finally, policy makers should ensure that public policy is influenced by children's perceptions, so it accurately represents children's views, rather than making assumptions about these.

Beunderman (2010) illustrates the importance of staffed play provision as offering safe opportunities for free play. While public space can offer a hostile environment for children, staffed provision allows children to 'roam free' and socialise with peers without the overriding concerns of unsupervised play. Beunderman is careful not to belittle the importance of unsupervised play within the community, but suggests that staffed provision can provide a unique and important contribution to local play opportunities. It is important not to confuse staffed play provision with structured activities, as only within the former do children have

the opportunity to direct their own play and create their own boundaries. Staffed play provision can help nurture adult-child relationships and establish a sense of trust that is often absent in the current social context.

Children in the study talked of the life skills that they had acquired through play, such as sharing, looking out for one another and asking for help. It is argued that such skills can provide them with a more positive outlook on the neighbourhood through gaining trust, feeling welcome and knowing others in the community. It seems that having a place to go, where children are listened to and respected gives them a positive perception of their local area. Through their engagement in the local environment and with others in the community, children not only had better relations with adults, but had more respect for the public arena allowing them to make a positive contribution to their local neighbourhood (Beunderman: 2010).

In Beunderman's study parents, like children and playworkers, were able to articulate their experiences of how play provision had benefited them and transformed the local community. Through this, parents had created social bonds with their neighbours and established support networks. This was particularly valuable for parents living in deprived areas where there may be more feelings of isolation. In fact, some parents noted that good quality play provision was an important factor in deciding which community they chose to live in. Parents also claimed that the presence of staffed play provision had contributed to a greater sense of community by uniting different social groups and bringing neighbours together and it also offered a vital setting for community involvement.

Reiterating Moore's points (1986), the Demos publication, *Seen and Heard*, argues that children and young people must be valued in public space and that children must be allowed to have safe, informal areas where they can hang out without adult supervision, DEMOS promote 'the importance of the everyday public realm as a legitimate site for children and young people's informal recreation, and a dimension of wellbeing' (Beunderman et al 2007: 113). This should stretch across all aspects of public space, beyond playgrounds and include all community members, regardless of age. They advocate traffic calming measures to help open up public space to children.

# Section 9: Play and the environment

## **Free play and exposure to nature are increasingly recognised as essential to healthy child development (Moore and Cosco 2009).**

Several studies have found that playing in natural environments has a positive impact on children's social play, their sense of well-being, their concentration and motor ability, and that children have a particular attraction to natural environments (Bird 2007; Lester and Russell 2008). Evidence suggests that the local environment is a key factor in their well-being; and the poorest and most vulnerable children suffer most from environmental degradation (SDC 2007).

A growing body of research indicates a direct connection between daily exposure to natural outdoor environments and individual health, including increased attention, improved fitness and motor functioning and lower sickness rates. Pretty (2009) cites a number of researchers who have demonstrated that outdoor play, especially in more natural environments, gives children a sense of freedom, healthier personal development, increased cognitive functioning, emotional resilience, and opportunities for self discovery.

Children who play outside more, learn to navigate their immediate environs and build their self confidence (Open University). Children who do not play outside can have fewer social networks, can be less confident and be less involved in their local community (Gleave 2010). Contact with nature may also have a significant and positive effect on an individual's attention levels and in children with ADHD, playing in a natural environment has been found to reduce their symptoms (Bird 2007). When young children play freely in natural environments they are more likely to enjoy nature as they grow up (Pretty 2009; HC Netherlands 2004). Having interesting and engaging environments for play can also reduce aggressive behaviour and conflict in schools. Destructive behaviour is more likely to occur in large, boring, open play areas, where space is not broken up by trees, bushes or other natural boundaries. In this type of bland environment it can be very difficult for small peer groups to get away from each other (Bird 2007).

Play provision needs to offer opportunities for co-operative play, modelling behaviour, conflict resolution and turn-taking as well as more obvious motor skills. Playground features should allow children to develop their own ideas and activities at their own pace (Gummer 2010). Modifying the play features in a playground has been shown to increase physically active play (Hughes 2007). To be active children need sufficient space, and age appropriate equipment and features to allow them to move around, fast and slowly, change direction and manipulate their environment (Thigpen 2007).

Not only is play important for children's well-being and healthy development but providing for play can make an important contribution to community well-being. Mainwaring and Taylor (date unknown) demonstrate how new play projects can make a significant difference to social interaction and a sense of community ownership in deprived areas (Barracough 2004).

## Section 10: A reduction in time to play

**It is commonly believed that play is a vital part of children's development and is fundamental for every child (Ginsburg 2006).**

Several commentators claim there is substantial evidence to suggest that play is key to physical, mental and social well-being. It has been linked to overcoming fears in everyday situations, decision making, discovering interests, brain development and enhancing academic learning. Not least, many authors contend play is a right for all children and offers them enjoyable experiences (Lester and Russell 2008; Jenkinson 2001).

Play theorists widely argue that play is associated with benefits such as acquiring life skills and improving children's emotional and academic development (Ginsburg 2006). It is also associated with a number of health benefits, including essential organ growth and muscle building. Socially, play allows children to explore their local neighbourhood, learn the rules of everyday life and discover the different textures and elements in the world (Clements 2004). Despite these benefits, there is evidence to suggest less of children's time is being devoted to play, in favour of structured or educational activities (Hofferth and Sandberg 2000; Doherty and Clarkson cited in Lester and Russell 2008). American writer David Elkind claims the role of play in physical and psychological well-being has been 'overlooked' in many areas. He states:

'School administrators and teachers – often backed by goal-orientated politicians and parents – broadcast the not-so-suitable message that these days play seems superfluous, that at bottom play is for slackers, that if kids must play, they should at least learn something while they are doing it.' (Elkind 2008, 1)

He claims that because of this, play has become an 'unaffordable luxury' in modern society, pushed aside to make way for organised activities which are seen as more educational, or television and gaming technology that has taken over from more traditional forms of play. He points to research from the US in 2007 suggesting that young children of pre-school age are watching around two hours of television a day (Elkind 2008).

Although evidence suggests that extra-curricular activities can enhance academic achievement, play experts have expressed concerns that children's free time has become associated only with learning, rather than enjoyment of play itself. This is by no means a new concept, as Elkind quoted in the 1980s:

'Our traditional conception of play was that of free, spontaneous, and self-initiated activity that reflected the abundant energy of healthy child development. Today, however, that conception of play has been relegated to the early childhood years. For school aged children, play is now identified with learning and with the preparation for adult life.' (Elkind cited in Lego Learning Institute 2002)

Oksnes (2008) reflects on her own research in Norway, analysing children's perceptions of play in relation to a 'spare time programme', which provides provision for children before and after school. She conducted focus groups with children aged seven and eight years old and observed children's play in the programme over a three-week period. From the data collected,

it became clear that the children's definition of play and leisure time was relatively ambiguous, and there was ultimately no agreement over what was meant by it. There was a general consensus that leisure time is associated with playing, freedom and the ability to do as they wish under their own direction, rather than an activity that is compulsory or under adult control. For this reason (and despite children's high regard for the programme), the children viewed neither school time nor the spare time programme as 'leisure time'. Rather, the programme provided a safe alternative for children to go to while their parents worked full-time. This evidence suggests that although children can enjoy organised activities, children do not necessarily view it as 'leisure time' or 'free time'. This evidence suggests that making time for free, unstructured play is important, even if children have access to more formal recreational activities.

More recently, Oksnes draws on theoretical work to discuss the role of play in children's lives. Play and leisure time have been described as 'instrumentalised' (Kleiber cited in Oksnes 2008) in the sense that it is simply viewed as a means of learning, rather than something to be enjoyed. This, it is argued, caused the development of 'good' or 'correct' forms of play that contribute towards children's academia or prepares them with life skills, rather than merely playing for enjoyment's sake. Mayall uses the term the 'scholarisation of childhood' to describe the idea that academic learning has crossed into all aspects of children's lives (Mayall 2000). Elsewhere, Thomas and Hocking argue that the replacement of self-directed play with organised leisure activities undermines the very nature of 'play' because it reduces the control children exercise over their free time (cited in Lester and Russell 2008). This is backed by research from Italy which shows that the essence of 'play' is the ability to 'lose' sense of time through one's own experience of the world as a place of 'mystery, risk and adventure' (Tonucci in Lester and Russell 2008). Structured activity, Tonucci argues, reduces the element of independence to make way for more adult control.

Zeiber believes that while selected places, designed for play, can be attractive to children and important for their social life, it also limits children's free time to a certain range of activities, often doing the same thing from day to day. For this reason 'the children see no necessity to overcome these restrictions by exploring new activities or going elsewhere to pursue them' (Zeiber 2003). However, Zeiber contends that children do exercise control over their free time through choosing whether to visit the play areas. Evidence was found of 'temporal freedom', as children actually chose when to visit the play sites rather than adhered to the restrictions of organised activities.

Research carried out in 2004 by Armitage (cited in Lester and Russell 2008), found that children value time spent away from adults and actively seek public areas that can offer this. However, a number of commentators believe that children are spending less of their time in public spaces away from adults (Veitch and others 2007, Mayall 2000a). A review of oral history and statistical evidence research in Amsterdam suggests that outdoor play has largely been replaced with supervised forms of play which, Karsten argues, has transformed the very meaning of childhood. He found the majority of children studied could be described as 'backseat children', in the sense that they are escorted to and from places by their parents and play mostly consists of adult-organised activities. Armitage has argued that more resources should be allocated to children's free play, but that they are instead channelled towards more supervised forms of activities.

Over-scheduling children's time could have implications for their health. Research from the late 1990s indicates that hectic schedules disrupt sleeping patterns (Carlskadon in Melman

and others 2007) and that pressures of homework and household chores have led to increased stress levels in adolescents (Shaw and others in Melman and others 2007). Rosenfeld used the term 'hyper-parenting' to describe an apparent phenomenon whereby parents aim for perfection from their children, encouraging extra-curricular activities at the expense of the imagination and creativity that is brought about by free-play (Rosenfeld and Wise 2001).



# Section 11: Play and schools

**Pellegrini (2008) argues that break time has come under heavy fire in both the UK and US.** Politically, he argues, playtime is viewed as a waste of time that could be spent on something more constructive. Over recent years, playtime in schools has been reduced as a way of finding increasing time for academic learning (Pellegrini and Holmes in Singer and others 2006). In fact, according to Pellegrini and Holmes, eliminating breaks is counter-productive as this may be the only opportunity children have to let off steam and socialise with their peers. Therefore, break times at school are both important and educational. In fact Bjork and Pellegrini have argued that 'playful' breaks from learning, that is, unstructured breaks, actually improve rather than hinder cognitive performance (Pellegrini 2008).

Reducing playtime at school, some writers have argued, can have implications for children's health. According to research carried out in northwest England, children accomplish around a third of their recommended daily amount of physical activity during school break times. The researchers conclude: 'These data indicate that recess provided a salient opportunity for children to take part in physical activity of different intensities and provide them with a context to achieve minimum daily physical activity guidelines.' (Ridgers and others 2005). The empirical evidence, presented by Pellegrini and others, showing the positive implications of break times, not only for academic achievement but also in terms of social skills and cognitive development, provides a strong argument that break times should be an important aspect of the school day, and the author recommends that playtime at schools should be lengthened. Physical education classes, he argues, would not provide the same benefits, as the children are under instruction without the kind of peer interaction and self-direction that can only be achieved through play (Pellegrini 2008).

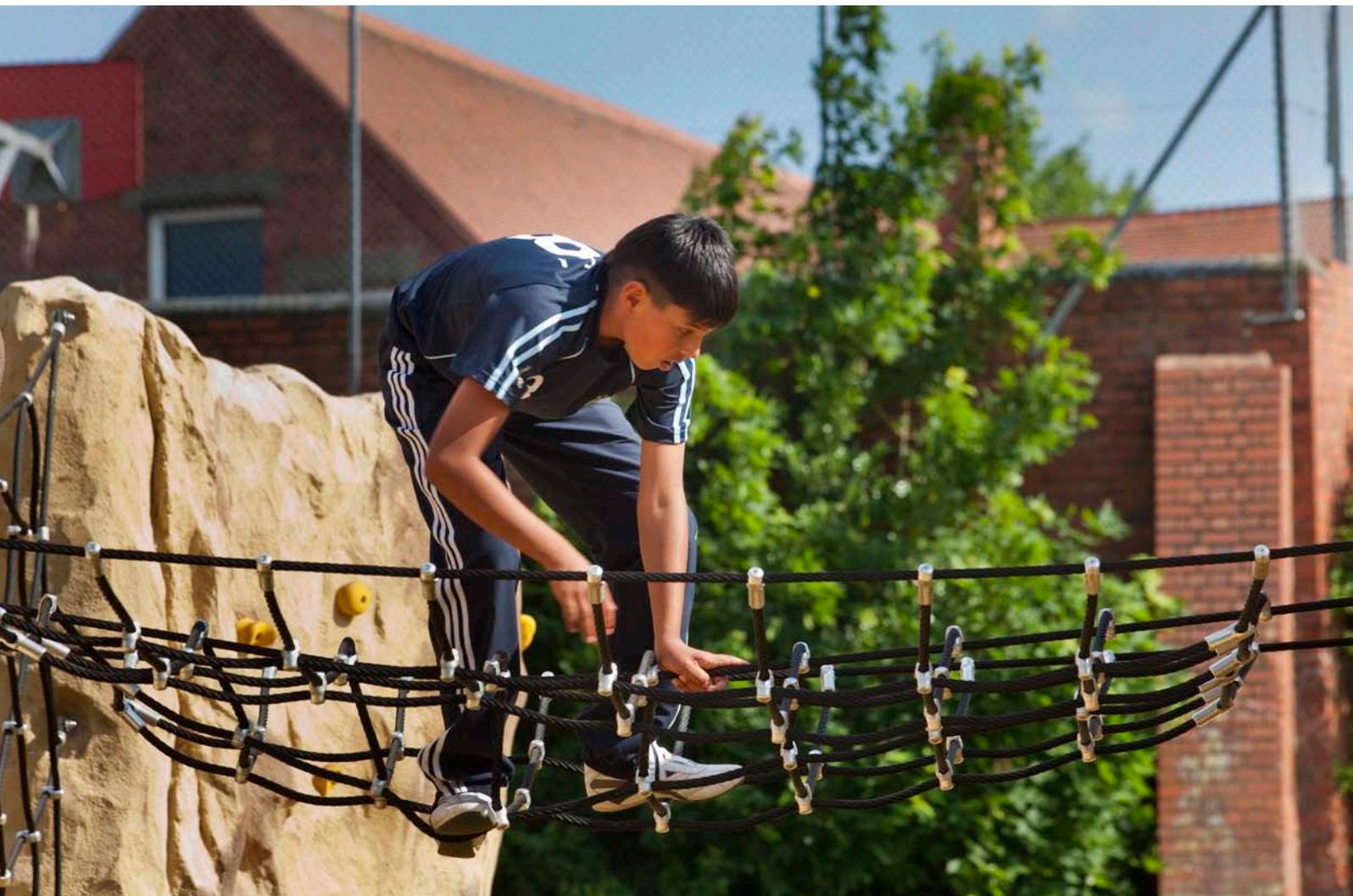
Mackett suggests that school break times are the primary opportunity for exercise for children and so physical activity will decrease if school break times are reduced. He argues that the replacement of unstructured play with structured activities outside of school hours, will not balance this, as children are frequently driven to and from these activities meaning that less physical activity is carried out (cited in Blatchford and Baines 2006).

Blatchford and others (2002) find that playground games are particularly important at the start of the school year and that shared knowledge of a game can be used by children unfamiliar to each other as the basis for interactions. Games can therefore 'scaffold' or support social relationships. Blatchford and Baines (2010) also describe that games can consolidate friendship groups after initial friendship formation and that the games children play contribute towards the identity of the friendship group.

In the 1990s, Blatchford found that despite lengthening the school day, break time, including lunchtime, had shortened in length. Blatchford found that children valued break times during school, especially lunchtime when the break was longer. It provided them with an opportunity for freedom from the rules and regulations of the rest of the school day. He agreed with the previous researchers, that break times during school are often regarded as problematic, and playtime had been cut down to make more time for the National Curriculum. This means the positive experience that most of the children had during breaks have been often overlooked. He suggested that changing the arrangements of break time, including altering the length of the breaks, should take children's high regard for this time into account.

Following up their earlier research, Blatchford and Baines (2006) conducted a large scale UK study focusing on break times in schools. The research builds on Blatchford's previous survey and found that, since the original research, break times had decreased and in many cases afternoon breaks had been completely eradicated. This change was most likely because of demands to meet targets through the National Curriculum, and also as a proposed solution to tackle 'behavioural' problems.

Blatchford and Baines extended the 2006 study to include 'extended school' services, and children's views on break times based on their own accounts. Children's free time at school decreased as children get older, as total break times reduced from 91 minutes per day for ages 4–7, to 77 minutes per day for ages 7–11, to 69 minutes per day for ages 11–16. The proportion of children aged 4–7 who received an overall break of 65 minutes and over, decreased from 60 per cent to 44 per cent over the previous 15 years; for children aged 7–11 this fell from 31 to 12 per cent; and for children aged 11–16 the figures show a decrease from 23 per cent to only 5 per cent.



## Section 12:

# Play and intergenerational relationships

**Davis et al (2002) looking at intergenerational aspects of play found that shared play experiences are a good way to build mutually beneficial relationships among younger and older generations,** and these interactions

contribute to cognitive growth, improved social skills, physical development and emotional well-being.

Older adults and children involved in intergenerational programs can thrive on the benefits of cross-generational exchanges. Play when combined with older adults in an intergenerational setting opens a new gateway to intergenerational programming (Davis et al, 2002). Indeed multi-age enriched play settings have been shown to provide more opportunities for interactions around literacy content (Christie & Stone, 1998) and combining a literacy-rich play context with adult mediation improves children's ability to read environmental print (Neuman & Roskos, 1992; 1993).

Children who have adults involved in their play are more creative (BTHA, 2002) and the pairing of younger and older generations in play situations that are active and interactive is likely to result in positive outcomes across all domains of children's development (Davis et al, 2002). It is not only the children that benefit though: older adults can learn about the children of today and even with the advent of television and computers, some things do not change.

Davis et al (2002) describe four good intergenerational toys that are traditional (and not electronic) that engage younger and older generations in satisfying play interactions. The authors found that playing with these standard toys breaks stereotyped feelings (from both the young and old) that the other is very different to them. Guddemi et al (cited in Davis et al 2002) state that children begin to develop a positive attitude toward the elderly and the aging process when they interact side-by-side.

# References

- Axford, N (2008) Exploring concepts of child well-being: Implications for children's services. Bristol: Policy Press.
- Barraclough et al (2004) Delivering play spaces in NDC areas. Sheffield: Centre for Regional Economic and Social Research, Sheffield Hallam University
- Begley, S. (1997) How to build a baby's brain, Newsweek – Special Edition: Your Child. 22 March
- Beunderman, J (2010) People make play: the impact of staffed play provision on children, families and communities. London: Play England.
- Beunderman, J (2010) People Make Play: The impact of staffed play provision on children, families and communities. London: Play England.
- Beunderman, J, Hannon, C and Bradwell, P (2007) Seen and Heard: Reclaiming the public realm with children and young people. London: Play England.
- Bird, W (2007) 'Nature's way', Leisure Management, 5, 40-42.
- Bird, W (2007) Natural Thinking Sandy: RSPB.
- Blakely, K, S (1994) 'Parents' Conceptions of Social Danger to Children in the Urban Environment' Children's Environment, 11(1): 16-25.
- Blatchford, P (1998) Social Life in School: Pupils' experience of breaktime and recess from 7 to 16 years. London: The Falmer Press.
- Blatchford, P and Baines, E (2006) A follow up national survey of breaktimes in primary and secondary schools: Reported to Nuffield Foundation. Available online from: <http://www.breaktime.org.uk/NuffieldBreakTimeReport-WEBVersion.pdf>
- Blatchford, P. and Baines, E. (2010) Peer relations in school - - in Elsevier Handbook of Educational Psychology: New Perspectives on Learning and Teaching - K.Littleton, C.Wood and Kleine Staarman (eds) 2010.
- Blatchford, Pellegrini, Baines and Kentaro (2002) Playground Games: their social context in elementary/junior school - Final report to the Spencer Foundation 2002. (Available here: <http://www.breaktime.org.uk/SpencerFinalReport02.pdf>).
- Boyd Webb, N (2009) 'Play and expressive therapies with medically challenged children and adolescents', in Boyd Webb, N (ed) Helping children and adolescents with chronic and serious medical conditions: a strengths based approach. Chichester: Wiley.
- British Heart Foundation (2009) Couch kids: the nation's future. BHF.
- Brown, B, Mackett, R, Gong, Y, Kitazawa, K and Paskins, J (2008) 'Gender Differences in Children's Pathways to Independent Mobility', Children's Geographies, 6(4): 385-401.
- BTHA (2002): <http://www.btha.co.uk/publications/ntc/intergen/html,.4/19/2002>
- Casey, T (2010) Inclusive Play: Practical strategies for children from birth to eight. London: Sage.
- Chambers, H et al (2002) Healthy Care: Building an evidence base for promoting the health and well-being of looked after children and young people. London: NCB.
- Christie J, Stone S. (1998) Collaborative literacy activity in print-enriched play centers: exploring the "zone" in same-age and multi-age groupings. Journal of Literacy Research, 31, 2, 109-131
- Clements, R (2004) 'An investigation of the status of outdoor play', Contemporary Issues in Early Childhood, 5, 1, 2004.
- Coalter, F and Taylor, J (2001) Realising the potential of cultural services: the case for play. London: Local Government Association.

Community Practice (2000); 73, 11: 843-844

Conservative Party (2008) More Ball Games: The childhood review. London: Conservative Party.

Counterpoint Research (2008) Childhood Wellbeing: Qualitative Research Study. London: Department for Children, Schools and Families.

Croucher, K et al (2008) The links between greenspace and health: a critical literature review. Stirling: Greenspace.

Davies, D and Boyd Webb, N (2009) 'Outpatient counseling for child and youth with life threatening conditions', in Boyd Webb, N (ed) op cit.

Davis, L., Larkin, E. & Graves, S (2002), 'Intergenerational learning through play', International Journal of Early Childhood, 34, 2, 42-49

Dietz, W (2001) 'The obesity epidemic in young children', British Medical Journal, 322, 7282, 313-4.

Dunn, K et al (2004) Developing Accessible play space: final research report. London: Department for Communities and Local Government.

Elardo, R.; Bradley, R.; & Caldwell, B.M. (1975). The relation of infants' home environments to mental test performance from 6 to 36 months: A longitudinal analysis. Child Development, 46, 71-76

Elder, J.L., and Pederson, D.R. (1978). Preschool children's use of objects in symbolic Play. Child Development, 49, 500-504

Elkind, D (2007) The power of play: how spontaneous, imaginative activities lead to happier, healthier children. Cambridge, MA: Da Capo Press.

Elkind, D (2008) 'The Power of play: Learning what comes naturally', American Journal of Play, 1, 1, Summer, 1-6.

Elsley, S (2004) 'Children's Experience of Public Space', Children and Society, 18(2): 155-164.

Fairclough, S et al (2008) 'Primary school children's health enhancing physical activity patterns: the school as a significant environment?', Education 3-13, 36, 4, 371-81.

Foley, P (2008-1) 'Introduction', in Collins, J and Foley, P eds (2008) Promoting children's wellbeing: policy and practice. Bristol: Policy Press.

Foley, P (2008-2) 'Health matters', in Collins, J and Foley, P eds (2008) Promoting children's wellbeing: policy and practice. Bristol: Policy Press.

Galyer, K. T., & Evans, I. M. (2001). Pretend play and the development of emotion regulation in preschool children. Early Child Development and Care, 166, 93-108

Gardner, F and Ward, S (2000) 'Parent child interaction and children's well-being: reducing conduct problems and promoting conscience development', in Buchanan, A and Hudson, B eds Promoting Children's Emotional Well-being. Oxford: Oxford University Press.

Gardner, F. and others. (2003). The role of mother-child joint play in the early development of children's conduct problems: A longitudinal observational study. Social Development, 12, 361-378

Ginsburg, K (2007) 'The importance of play in promoting healthy child development and maintaining strong parent-child bonds', Pediatrics, 119, 182-91.

Ginsburg, K (2006) The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds. USA: American Academy of Paediatrics.

Gladwin, M and Collins, J (2008) 'Anxieties and risks' in Collins, J and Foley, P eds (2008) Promoting children's wellbeing: policy and practice . Bristol: Policy Press.

Gleave, J (2008) Risk and play: a literature review. London: Play England.

Grossman, K. And others (2002) The uniqueness of the child-father attachment relationship: Fathers' sensitive and challenging play as a pivotal variable in a 16-year longitudinal study. Social Development, 11, 301-337

- Gummer, A (2010) "The role of modern playgrounds in child development", *Ip-Dip*, 15 4-26.
- Health Council of the Netherlands (2004) *Nature and Health: The influence of nature on social, psychological and physical well-being: Part 1 of a two-part study: review of the current level of knowledge*. <http://www.forhealth.fi/pmwiki/docs/dutch-health-council-review.pdf> (Accessed Dec 2010)
- Hemmings, P (2007) 'Renegotiating the primary school: children's emotional geographies of sport, exercise and active play', in *Children's Geographies*, 5, 353-71.
- Hillman, M, Adams, J and Whitelegg, J (1990) *One False Move: A study of children's independent mobility*. London: Policy Studies Institute.
- Hirschland, D (2009) 'Addressing social, emotional, and behavioral challenges through play" in *Zero to Three*, 30, 1, 12-17.
- Hofferth, SL and Sandberg, JF (2000) 'Changes in American Children's Time: 1981-1997. Available online from: <http://ceel.psc.isr.umich.edu/pubs/papers/ceel013-00.pdf>
- Hope, G et al (2007) 'Wild woods or urban jungle: playing it safe or freedom to roam', *Education* 3-13, 35, 4, 321-32.
- Hubbuck, C (2009) *Play for sick children: play specialists in hospitals and beyond*. London: Jessica Kingsley.
- Hughes, B (2007) 'Does adventure playground modification affect the intensity of the play that takes place there?', *Playrights Magazine*, 2.
- Irwin, L, G, Johnson, A, Henderson, V, S, Dahinten and Hertzman, C (2007) 'Examining How Context Shapes Young Children's Perceptions of Health' *Child: Care, health and development*, 33(4): 353-359.
- Jebb, S et al (2007) *The 'Healthy Living' Social Marketing Initiative: A review of the evidence*. London: COI for the Department of Health.
- Jenkinson, S (2001) *The Genius of Play: Celebrating the spirit of childhood*. UK: The Bath Press.
- Jenkinson, S (2005) 'Teaching the heart: the emotional value of play' in Burrell, A and Riley, J eds *Promoting Children's Well. Being in the Primary Years: The Right from the Start Handbook*. Stafford: Network Educational Press.
- KIDS (2010a) *The health benefits of play and physical activity for disabled children and young people*. London: KIDS.
- LEGO Learning Institute (2002) *Time for Playful Learning? A cross-cultural study of parental values and attitudes towards children's time for play*. Billund: The Institute.
- Lester S and Maudsley M. (2006) *Play Naturally: A review of children's natural play*. Commissioned by the Children's Play Council.
- Lester, S and Russell, W (2008) *Play for a charge: play, policy and practice: a review of contemporary perspectives: Summary report*. London: Play England.
- Lindon, J (2007) *Understanding children and young people: Development from 5 -18 years*. London: Hodder Arnold.
- Lindsey, E. & Mize, J. (2000) *Parent-child physical and pretense play: Links to children's social competence*. *Merrill-Palmer Quarterly*, 46, 565-591
- Living Streets (2009) *No Ball Games Here (or Shopping or Talking to their Neighbours): How UK streets have become no-go areas for our communities*. London: Living Streets.
- Lovett, J (2009) 'A behavioral paediatrician's perspective on helping children recover from traumatic medical experiences', in Ebb, N (ed) *Helping children and adolescents with chronic and serious medical conditions: a strengths based approach*. Chichester: Wiley.
- Low Deiner, P and Qiu W (2007) 'Embedding physical activity and nutrition in early care and education programmes', *Zero to Three*, 28, 13-18.
- Mackett ,R et al (2007) 'Children's independent movement in the local environment', *Built Environment* , 33, 4, 454-68.

- Mainwaring, B and Taylor, C ( ) The benefits of play and playwork: recent evidence-based research (2001-2006) demonstrating the impact and benefits of play and playwork. London: Community and Youth Workers Union and SkillsActive.
- Marjanovic-Umek, L and Lesnik-Musek, P (2001), 'Symbolic Play: Opportunities for cognitive and language development in preschool settings', *Early Years*, 21, 1, 55-64
- Mayall, B (2000) 'The sociology of childhood in relation to children's rights', *The International Journal of Children's Rights*, 8, 3, 243-59.
- McLoyd, V.C. (1986) Scaffolds or shackles? The role of toys in preschool children's pretend play. In. G. Fein and M. Rivkin (Eds.), *The young child at play* (Washington, DC, National Association for the Education of Young Children) pp. 63-78
- Milano, K (2007) 'Prevention: the first line of defense against childhood obesity', *Zero to Three*, 28, 1, 6-11.
- Moore, R (1986) *Childhood's Domain: Play and place in child development*. London: Croom Helm.
- Moore, R and Cosco, N (2009) 'The re-emerging importance of outdoor play in nature', *Playrights Magazine*, 1, 4-6.
- Morrow, V (2006) 'Understanding Gender Differences in Context: Implications for young children's everyday lives', *Children and Society*, 20 (2): 92-104.
- Neuman, S and Roskos, K (1992), 'Literacy Objects as Cultural Tools: Effects on Children's Literacy Behaviors in Play', *Reading Research Quarterly*, 27, 3, 202-225
- Neuman, S and Roskos, K (1993), 'Access to Print for Children of Poverty: Differential Effects of Adult Mediation and Literacy-Enriched Play Settings on Environmental and Functional Print Tasks', *American Educational Research*, 30, 1, 95-122
- NICE (2008) *Promoting physical activity for children: Review 8 – Active play Physical activity and children: review of learning from practice: children and active play*. London: NICE.
- NICE (2010) *Preventing unintentional injuries among under 15s: outdoor play and leisure consultation draft 2010*. London: NICE.
- Oksnes, M (2008) 'The carnival goes on and on! Children's perceptions of their leisure time and play in SFO', *Leisure Studies*, 27, 2, 149-64.
- Open Space (2006) *The role of wild adventure space in young people's lives*. Edinburgh: Open Space.
- Open University ( ) *Play, learning and the brain*. <http://openlearn.open.ac.uk/mod/oucontent/view.php?id=397465&printable=1>
- Paquette, D. et al (2003) Prevalence of father-child rough-and-tumble play and physical aggression in preschool children. *European Journal of Psychology of Education*, 18, 171-189
- Parrish, A-M et al (2009) 'What factors influence children's activity?', *British Journal of School Nursing*, 4, 6-10.
- Pellegrini, A. D. & Galda, L. (1982) 'The effects of thematic-fantasy play training on the development of children's story comprehension', *American Educational research Journal*, 19, 443-452
- Pellegrini, A (2008) 'The recess debate: A disjunction between educational policy and scientific research', *American Journal of Play*, 1, 2, 181-91.
- Pellegrini, AD and Holmes, RM 'The role of recess in primary school', in Singer, DG, Golinkoff, RM and Hirsh-Pasek, K (eds) (2006) *Play = Learning: How play motivates and enhances children's cognitive and social-emotional growth*, Oxford: Oxford University Press.
- Playday (2007) *Our Streets Too!* London: Play England. Available online: [www.playday.org.uk/playday\\_campaigns/2007\\_our\\_streets\\_too/2007\\_research.aspx](http://www.playday.org.uk/playday_campaigns/2007_our_streets_too/2007_research.aspx)
- Power, T. (2000) *Play and exploration in children and animals*, London: Lawrence Erlbaum Associates, pp. 362-375

- Pretty, J and others (2009) *Nature, childhood, health and life pathways*. Colchester: University of Essex.
- Ridgers, ND, Stratton, G and Fairclough, SJ (2005) 'Assessing physical activity during recess using accelerometer', *Preventive Medicine*, 41, 2, 26–9.
- Ross, N (2007) 'My journey to school ... foregrounding the meaning of school journeys and children's engagements and interactions in their everyday localities', *Children's Geographies*, 4, 373–91.
- Rubin, K.H. (1980) 'Fantasy play: its role in the development of social skills and social cognition', in K.H. Rubin (Ed.) *Children's Play* (San Francisco, Jossey-Bass), pp. 69–84
- Saunders, L and Broad, B (1997) *The Health Needs of Young People Leaving Care*. De Montfort University
- Sherbert Research (2009) *Customer Voice Research: Play*. London: Department for Children Schools and Families.
- Singer, J. (1994) *Imaginative play and adaptive development*. In J. Goldstein (ed.), *Toys, play and child development*. Cambridge University Press
- Smilansky, S. (1968) *The Effects of Sociodramatic Play on Disadvantaged Preschool Children* (New York, Wiley)
- Spilsbury, J, C (2005) 'We Don't Really Get To Go Out in the Front Yard – Children's Home Range and Neighbourhood Violence', *Children's Geographies*, 3(1): 79–99.
- Statham, J and Chase, E (2010) *Childhood Wellbeing: A brief overview*. Loughborough: Childhood Wellbeing Research Centre.
- Sustainable Development Commission (2007) *Every Child's Future Matters*.
- Sutton-Smith, B. (1997) *The Ambiguity of Play*, Harvard University Press
- Thayer, P (2009) 'Meeting the spiritual needs of children with chronic and life-threatening illness', in Boyd Webb, N (ed) *op cit*.
- Thigpen, B (2007) 'Outdoor play: combating sedentary Lifestyles', *Zero to Three*, 28, 1, 19–23.
- Thompson, J. et al (2010) 'Physically active families—debunking the myth? A qualitative study of family participation in physical activity', *Child: Care, Health and Development*, 36, 2, 265–74.
- UNICEF (2007) *Child poverty in perspective: An overview of child well-being in rich countries*. Florence: UNICEF.
- Wood, E (2007) 'New directions in play: consensus or collision?', *Education 3–13*, 35, 4, 309–20.
- Worpole, K and Knox, K (2007) *The Social Value of Public Spaces*. York: Joseph Rowntree Foundation.
- Zeiger, H 'Shaping daily lives in urban environments', in Christensen, P and O'Brien, M (eds) (2003) *Children in the City*. London: Routledge Falmer.
- Zigler, E and Bishop-Josef, (2009) 'Play under siege: a historical perspective', *Zero to Three*, 30, 1, 4–11.

