The importance of play

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A report on the value of children's play with a series of policy recommendations

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Table of Contents

Part 1. Aims of the Report 3

Part 2. Executive Summary 5

Authors and Contributors 7

Part 3. Review of Research 8

3.1 Archeological, historical, anthropological and sociological research 8

3.2 Evolutionary and psychological research 13

3.3 The five types of play 18

3.4 Environmental and social factors supporting or inhibiting play 24

3.5 The consequences of play deprivation 28

3.6 The work and views of European play researchers 29

Part 4. The work and views of European Play Organisations 35

4.1 The work of European play organisations 35

4.2 Views of European play organisations on issues related to children's play 37

Part 5. Policy Review and Recommendations 40

Part 6. Bibliography 48

Part 1. Aims of the Report

'Play' is sometimes contrasted with 'work' and characterised as a type of activity which is essentially unimportant, trivial and lacking in any serious purpose. As such, it is seen as something that children do because they are immature, and as something they will grow out of as they become adults. However, as this report is intended to demonstrate, this view is mistaken. Play in all its rich variety is one of the highest achievements of the human species, alongside language, culture and technology. Indeed, without play, none of these other achievements would be possible. The value of play is increasingly recognised, by researchers and within the policy arena, for adults as well as children, as the evidence mounts of its relationship with intellectual achievement and emotional well-being.

This report, however, focuses on the value of children's play. It is a particularly important time for this to be recognised, as modern European societies face increasing challenges, including those that are economic, social and environmental. At the same time, the opportunities and support for children's play, which is critical to their development of the abilities they will need as future citizens able to address these challenges, are themselves under threat. This arises from increasing urbanisation, from increasing stress in family life, and from changes in educational systems.

Within the educational field, during recent decades the importance of high quality early childhood education has been increasingly recognised by the research community and by governments and policy makers throughout Europe and world-wide. However, the nature of 'high quality' in this context has been contested. While in some European countries the emphasis continues to be upon providing young children with rich, stimulating experiences within a nurturing social context, increasingly in many countries within Europe and across the world, an 'earlier is better' approach has been adopted, with an emphasis upon introducing young children at the earliest possible stage to the formal skills of literacy and numeracy. This is inimical to the provision and support for rich play opportunities. What is increasingly recognised within the research and policy communities, however, is that one vital ingredient

in supporting healthy intellectual, emotional and social development in young children is the provision of opportunities and the support for play.

The purposes and functions of play in children's development have been researched for well over a century by thinkers and scientists from a range of disciplines. Part 3 of this report provides an overview of the range of research concerned with children's play (anthropological, sociological, historical, psychological, educational) which has established the value of play for learning and development (and the consequences of a lack of play opportunities). This includes sections reviewing the research concerned with each of the five main types of play in which human children engage (physical play, play with objects, symbolic play, pretence/socio-dramatic play and games with rules) and the implications of each area of research for provision and policy. This part of the report concludes with a section summarising the research, views and policy recommendations related to children's play of leading European play researchers.

Alongside, and partly arising from, the increasing body of research evidence, there has been a recent and significant growth in the recognition of the importance of children's play within the policy arena. The report recognises this in Part 4 which provides an overview of the governmental, professional and charitable organisations across Europe concerned with the provision and enhancement of children's play opportunities. This section includes a survey of the views of these leading stakeholders on the value of play for children's learning and development, and of their policy recommendations.

International bodies such as the United Nations and the European Union have begun to consider and develop policies concerned with children's right to play, with the educational and societal benefits of play provision, and with the implications of this for leisure facilities and educational programs. The recognition of the need for further research in this area is also documented. In Part 5, therefore, the report reviews these policy developments, including existing European policy, and makes further policy recommendations for play provision in educational and non-educational contexts, and for beneficial research initiatives.

Part 2. Executive Summary

2.1 The archaeological, historical, anthropological and sociological research into children's play shows that play is ubiquitous in human societies, and that children's play is supported by adults in all cultures by the manufacture of play equipment and toys. Different types of play are more or less emphasised, however, between cultures, based on attitudes to childhood and to play, which are affected by social and economic circumstances.

2.2 In many ways, children's right and opportunities for play are constrained within modern urbanised societies within Europe. This appears to be a consequence of the environmental 'stressors' of contemporary life, the development of a risk-averse society, the separation from nature, and tensions within the educational arena, with an emphasis on 'earlier is better'.

2.3 The evolutionary and psychological evidence points to the crucial contribution of play in humans to our success as a highly adaptable species. Playfulness is strongly related to cognitive development and emotional well-being. The mechanisms underlying these relationships appear to involve play's role in the development of linguistic and other representational abilities, and its support for the development of metacognitive and self-regulatory abilities.

2.4 Psychological research has established that there are five fundamental types of human play, commonly referred to as physical play, play with objects, symbolic play, pretence or socio-dramatic play, and games with rules. Each supports a range of cognitive and emotional developments, and a good balance of play experience is regarded as a healthy play diet for children. Some types of play are more fully researched than others, and much remains to be understood concerning the underlying psychological processes involved.

2.5 Children vary in the degree to which they are playful, and have opportunities to play. Playful children are securely attached emotionally to significant adults. Poverty and urban living, resulting in stressed parenting and lack of access to natural and outdoor environments,

can lead to relative play deprivation. At the same time, children brought up in relatively affluent households may be over-scheduled and over-supervised as a consequence of perceptions of urban environments as dangerous for children, and a growing culture of risk-averse parenting. Children suffering from severe play deprivation suffer abnormalities in neurological development; however, the provision of play opportunities can at least partially remediate the situation.

2.6 Leading play researchers from eight European countries were consulted about their work and their views on the important aspects of play for learning and development. While there were differences in emphasis, there was general consensus that play is difficult to define, that it is not the only context for children's learning, but makes unique and beneficial contributions, that play provision is under threat in Europe, and that there are dangers but also contributions from screen-based play. The role of adults in supporting children's play is complex, often poorly executed and counter-productive, and different views were expressed. This is an area which would benefit from further research.

2.7 Organisations supporting and advocating children's play from across Europe were also consulted, with twelve representative bodies responding to a survey of their work, their views on the nature and value of children's play, and on the extent and quality of current provision. Perhaps not surprisingly, there was widespread support for the value of play and extensive evidence of poor provision. At the same time, numerous examples were provided of initiatives which were significantly enhancing opportunities for high quality play experiences in different parts of Europe.

2.8 The report acknowledges the work of the European Commission and Council in their development of policies supporting provision for children's play. For example, on 12 May 2011, the European Parliament adopted a resolution on Early Years Learning in the European Union, which notes that the early years of childhood are critical for children's development and highlights that 'in addition to education, all children have the right to rest, leisure and play'.

2.9 It makes four recommendations for more detailed policies which could be developed, with advantage, by the European Union, which are supported by the research evidence and the expert views of the play researchers and organisations consulted. These are as follows:

- Promote awareness and change attitudes regarding children's play
- Encourage improved provisions of time and space for children's play
- Support arrangements enabling children to experience risk and develop resilience through play
- Establish funding agencies that promote play and play research

Authors and Contributors

This report has been researched and written by Dr David Whitebread, a Senior Lecturer in Psychology and Education at the University of Cambridge, UK, together with two of his PhD students, Martina Kuvalja and Mohini Verma, and a post-doctoral researcher, Marisol Basilio. The latter are each conducting research into aspects of young children's play and learning. Dr Whitebread is an expert in the cognitive development of young children and in early childhood education. He has published extensively in relation to children's learning and development, and the role of play in these processes. His most recent publication is *Developmental Psychology and Early Childhood Education* (Sage, 2012).

The authors would like to thank the European play researchers and play organisations who contributed information and views which have informed this report. The former are listed on p. 31, and the latter on pp. 36-7.

Part 3. Review of Research

This part of the report presents a literature review of research concerned with the phenomenon of play. Extensive research has been conducted concerning the nature and purposes of play within a wide range of academic disciplines. The role of play in relation to its contexts within human societies has been addressed within archaeological, historical, anthropological and sociological research, and this work is addressed in the first section (section 3.1.) of this review below. Following this, section 3.2 addresses the research which has attempted to understand the psychological processes through which play impacts directly upon individual learning and development. The following three sections (sections 3.3 – 3.5) set out the research related to the now established five general play types, the environmental factors which support or inhibit play, and the consequences of play deprivation.

As part of the process of putting together this review, a number of leading play researchers from across Europe and across disciplines were specifically consulted. They were asked to provide a brief report indicating the nature of their research contribution, together with their views on significant factors influencing the contribution of play to children's learning and development, the consequences of a lack of provision, and their policy recommendations. The information and views they submitted are summarised in the final section of this review (section 3.6).

3.1 Archaeological, historical, anthropological and sociological research

The study of play through time and across cultures has consistently demonstrated two characteristic features of play in human societies. First, it is clear that play is ubiquitous among humans, both as children and as adults, and that children's play is consistently supported by adults in all societies and cultures, most clearly in the manufacture of play equipment and toys. Second, it emerges that play is a multi-faceted phenomenon, with a variety of types that appear in all societies, but that there are variations in the prevalence and forms that the various types of play take in different societies. These variations appear to arise from differing attitudes concerning the nature of childhood and the value of play.

Archaeological and cross-cultural records indicate the prevalence of play and games since prehistoric times, supported by the existence of dice, gaming sticks, gaming boards and various forms of ball-play material made of stones, sticks and bones from the Palaeolithic Era (Fox, 1977; Schaefer and Reid, 2001). Excavations in ancient China, Peru, Mesopotamia and Egypt have revealed miniature models made of pottery and metal, most probably used as toys for children and drawings showing depictions of people playing and play objects such as tops, dolls and rattles (Frost, 2010).

Within historical times, studies of the nature of childhood within European cultures have revealed a remarkably consistent picture (Ariès, 1996, Cunningham, 2005). Thus, in the classical societies of ancient Greece and Rome, children's play was clearly valued and the seeds of many modern views on play can be discerned. Plato (427 – 347 BC), for example, advocated the use of free-play, gymnastics, music and various other forms of leisurely activities as means of developing skills for adult life, as well as supporting health and physical development. Aristotle (384 – 322 BC) also emphasised the value of play and physical activities for the overall development of the child. Roman thinkers such as Quintilian (35-97 AD) recommended the use of play as the earliest form of instruction. Historians (Wiedemann, 1989; Golden, 1993), when trying to reconstruct the life of children in these ancient societies, have found play to be the characteristic feature of childhood, with children enjoying great autonomy in the sphere of play.

A similar picture emerges in studies of childhood throughout medieval Europe and into the period of the Reformation and Renaissance (Hanawalt, 1995; Orme, 2001). Ideas such as developmentally appropriate education, play-based pedagogy, learning through first-hand experience, the importance of vigorous play for healthy development and adult participation in children's play can be seen clearly articulated by the thinkers and educators of these times, including Martin Luther, John Amos Comenius and John Locke. In the modern era proponents of early childhood education such as Rousseau, Pestalozzi and Froebel advocated similar ideas, and in some cases implemented them in their own educational centres (e.g.: Pestalozzi's Institute for children in Switzerland established in 1805 and the first 'kindergarten' started by Froebel in Germany in 1837). Froebel was also the first to use the term 'playground' to describe play environments developed by adults for

children.

Within the twentieth century, renowned folklorists Iona and Peter Opie's encyclopaedic studies of British children's folklore, language, nursery rhymes and games (Opie and Opie, 1952; 1959) demonstrated that children were singing, playing and talking with each other in the same manner as their predecessors over a century ago, and across the English-speaking world. More recent reviews of these collections furthermore, have documented the continuation of these traditions until today and across continents (Warner, 2001).

Anthropologists have studied children's play in a wide variety of cultures and, increasingly in the modern world, with the increase in levels of immigration, in sub-cultures within societies. The cultures studied include those that are ancient and technologically primitive, such as Mayan culture in Mexico (Gaskins, 2000), cultures in the developing world, such as Malaysia (Choo, Xu and Haron, 2011) and Puerto Rico (Trawick-Smith, 2010), and modern, urbanised, technologically advanced cultures, such as Italy (Bornstein, Venuti and Hahn, 2002). Several studies have compared play across cultures or sub-cultures, in relation to cultural attitudes and practices. Cote and Bornstein (2009), for example, have reported a number of studies comparing play and attitudes to play amongst mothers and young children in Japanese, South American and European immigrant sub-cultures in the United States.

A number of clear and consistent patterns emerge from these studies. All five types of play in which human children engage (physical play, play with objects, symbolic play, pretence/sociodramatic play and games with rules) are found in different manifestations, depending on available technology, in all cultures. However, there are variations between cultures and subcultures in attitudes to children's play, arising from cultural values about childhood, gender and our relations with the natural world often linked to economic conditions, religious beliefs, social structures and so on. Cultural attitudes, transmitted to the children predominantly through the behaviour of their parents, affect how much play is encouraged and supported, to what age individuals are regarded as children who are expected to play, and the extent to which adults play with children.

Attitudes to gender in different cultures also impact upon children's play. In cultures in which there is rigid separation between adult male and female roles boys and girls are prepared for these roles through the toys and games provided, with boys play often being more competitive, physical and dangerous and girls play being more focused on their future domestic role, involving play with household objects, such as pots and pans, tea-sets, and dolls. Historically, children in all cultures have played extensively in their natural environments. In modern, urbanised societies, however, the natural environment is often seen as remote and dangerous for children, so specially designed playgrounds and parks are seen as more appropriate play spaces.

Gaskins, Haight and Lancy (2007) have identified three general cultural perceptions or views of play which seem to have a significant impact on the pattern of children's play, and the level of involvement of their parents, as follows:

- *'Culturally curtailed play'* – in some pre-industrial societies play is tolerated but viewed as being of limited value and certain types of play are culturally discouraged. For example, in Gaskins (2000) study of the Mayan people in the Yucatan she found that pretence involving any kind of fiction or fantasy was regarded as telling lies.

- *'Culturally accepted play'* – in pre-industrial societies parents expect children to play and view it as useful to keep the children busy and out of the way, until they are old enough to be useful, but they do not encourage it or generally participate in it. Consequently the children play more with other children unsupervised by adults, in spaces not especially structured for play, and with naturally available objects rather than manufactured toys.

- *'Culturally cultivated play'* – middle-class Euro-American families tend to view play as the child's work; play is encouraged and adults view it as important to play with their children. The children also often spend time with professional carers, who view it as an important part of their role to play with the children to encourage learning. The style and content of this involvement varies, however; a study of mothers in Taiwan found that they directed the play much more than Euro - American parents and

focused on socially acceptable behaviour, rather than encouraging the child's independence.

When we look at the contemporary situation in 21st century Europe, it is clear that the final general view of 'culturally cultivated play' generally prevails. At the same time, however, it is clear that there are variations even within Europe, and that there are tensions between many parents' views and the opportunities they are able to afford their children. Two particular issues emerge related to attitudes to children's safety and risk, and to the amount of time parents are able to devote to playing with their children.

A currently emerging cultural difference within modern Euro-American societies involves attitudes to risk; in the heavily urbanised UK, for example, the culture is currently quite risk-averse, and so children are heavily supervised and play indoors, in their gardens and in specially designed play spaces with safety surfaces. In the more rural and thinly populated Scandinavian countries, however, children are much more encouraged to play outdoors and in natural surroundings, and are far less closely supervised. At the same time, many parents across the developed countries of the world have reported in a number of surveys that they feel they do not have sufficient time to play with their children. This was a clear finding, for example, of a survey carried out by the LEGO Learning Institute (2000) of parents in France, Germany, the UK, Japan and the USA.

The evidence suggests that modern, urbanised life styles often result in a pattern whereby children are much more heavily scheduled during their leisure time than was the case in the recent past. Lester and Russell (2010), in a major review of research examining children's contemporary play opportunities worldwide, provide a very useful and compelling review of the environmental 'stressors' in modern life, associated with increasing urbanisation, which impact negatively on children's play experiences. Within this, they make the telling point that half the world's children will very soon be living in cities. The concern of many commentators is that the resulting pattern of children being over-supervised and over-scheduled, with decreasing amounts of time to play with their peers or parents, is likely to have an adverse effect on children's independence skills, their resourcefulness and the whole range of developmental benefits which we document in the following section. In the

LEGO Learning Institute (2000) study a review of newspapers and periodicals demonstrated that there have been extensive debates about this issue in the public press from at least the mid 1990s onwards. Many parents, in their response to the survey they completed, indicated clearly that they recognise these problems in their own lives, and would very much welcome the opportunity to provide improved quality of play experiences for their children.

There are also currently tensions within the educational arena. Over the last ten to twenty years, the curriculum for early childhood and primary education has been increasingly prescribed by governments. While these have avowed the value of children learning through play, this has been systematically limited to children under the age of six to seven years of age. While there are many beacons of excellence, what play provision there is within educational contexts across Europe is also often ineffectively supported by inadequately trained staff. As a consequence, there has been a plethora of books published recently by early childhood educationalists and developmental psychologists setting out the value of play for children's learning and development (see, for example, Moyles, 2010; Broadhead, Howard and Wood, 2010, Whitebread, 2011). At the same time, however, these publications consistently document the difficulties early years practitioners have in developing effective practice to support children's learning through play, largely exacerbated by pressures to 'cover' the prescribed curriculum, meet government imposed standards etc. Combined with the curbs on children's free play opportunities identified within the home context above, this leads to a worrying picture overall of children across Europe and the rest of the developed world with increasingly limited opportunities for the free play and association with their peers which were so commonly available only a generation or two ago to their parents and grandparents. Chudakoff (2007), for example, has documented the sharp decline in children's free play with other children across the 'Western' world.

3.2 Evolutionary and psychological research

Psychologists have been researching and theorising about play and its role in development for well over a century. However, partly because of its highly multi-faceted nature and the

fact that it is an intrinsically spontaneous and unpredictable phenomenon, it has proved to be extremely difficult to define and to research. As a consequence, whilst it is almost universally accepted that children benefit from play opportunities, and particularly strongly supported amongst the early childhood professional community, realising the full developmental and educational potential of play in practice has proved illusive. However, there has been a considerable resurgence in research on children's play in recent years which gives us a much clearer view of the nature of play, of its purposes and the processes by which it influences development and learning. In turn, these more recent analyses provide very clear guidelines as to the nature of provision for play that is required to allow our young children to flourish in all aspects of development.

The evidence for the developmental benefits of play is actually now overwhelming. There is also an emerging consensus as to the various types of play and their developmental significance. This new position arises partly from the surge of evidence arising in the last few decades from evolutionary psychology. It has been recognised for some time that, through evolution, as more and more complex animals evolved, the size of their brains increased, and this was associated with increasingly longer periods of biological immaturity (i.e. the length of time the young were cared for by their parents), paralleled by increasing playfulness (Bruner, 1972).

Thus, as mammals evolved into primates, and as primates evolved into humans, there was an increase in problem-solving abilities allowing greater 'tool use' and an increase in 'representational' abilities supporting the development of language and thought. Paralleling this, in mammals we see the emergence of physical play (mostly 'rough and tumble'); in primates we see 'play with objects' developing and simple tool use, and in humans we see the emergence of 'symbolic' forms of play (including verbal and artistic expression, pretence, role-play and games with rules) which depend upon our 'symbolic' abilities such as language. This analysis of the evolution of play, and its most glorious manifestation in humans, has led researchers in this area to argue that playfulness is fundamental to the development of uniquely human abilities. Pellegrini (2009), for example, has concluded that, in animals and humans, play (as opposed to 'work') contexts free individuals to focus on 'means' rather than 'ends'. Unfettered from the instrumental constraints of the work

context, where you have to get something done, in play the individual can try out new behaviours, exaggerate, modify, abbreviate or change the sequence of behaviours, endlessly repeat slight variations of behaviours, and so on. It is this characteristic of play, it is argued, that gives it a vital role in the development of problem-solving skills in primates, and the whole gamut of higher-order cognitive and social-emotional skills developed by humans. The evolutionary perspective has thus contributed significantly to the emerging consensus around the psychological functions of play and an agreed typology of play based on its adaptive psychological functions (which we detail below).

Powerful evidence supporting this view of the role of play in human functioning has also emerged within recent developmental psychology. Here, recent studies using a range of new research techniques, including neuroscientific and other physiological measures, have shown strong and consistent relationships between children's playfulness and their cognitive and emotional development. Tamis-LeMonda and Bornstein (1989), for example, have demonstrated that infant habituation (an established measure of how quickly an infant processes information, strongly related to emerging cognitive abilities) predicts the amount of symbolic play children engage in a few years later. We also now have extensive evidence of the inter-relationships between the complexity and sophistication of children's play, particularly their symbolic or pretend play, and their emotional well-being (sometimes assessed through physiological measures of stress) (Bornstein (2006).

Much of the contemporary work on children's play within developmental psychology, however, has built on the influential theories of the Russian psychologist of the first part of the 20th century, Lev Vygotsky (1896 – 1934). His writings were suppressed in Stalin's era and not published in English until the 1970s. Since that time, however, his ideas about the processes of children's learning have been enormously influential. His key insight as regards the role of play (Vygotsky, 1978) was that it makes two crucial contributions to children's developing abilities, which relate to their development of language (and other human forms of 'symbolic representation') and to their developing abilities to control their own cognitive and emotional processes, or to 'self-regulate'. The significance of this insight has become increasingly recognised as the evidence has mounted that these two abilities, language and self-regulation, are intimately inter-related (Vallaton and Ayoub, 2011) and together form

the most powerful predictors of children's academic achievement and of their emotional well-being (Whitebread, 2011).

As regards language, Vygotsky argued that play makes a crucial contribution to the development of the unique human aptitude for using various forms of symbolic representation, whereby various kinds of symbols carry specific, culturally defined meanings. These forms of symbolic representation include drawing and other forms of visual art, visual imagination, language in all its various forms, mathematical symbol systems, musical notation, dance, drama and so on. Play is recognised in this analysis as the first medium through which children explore the use of symbol systems, most obviously through pretence. The co-occurrence in infants of the emergence of pretend play and the use of sounds to carry meaning (the beginnings of language) around the age of ten to fourteen months is widely reported, and clear support for Vygotsky's analysis of the involvement of pretence in the early development of symbolic representational abilities.

Vygotsky went on to argue that pretence play becomes a 'transition' from the 'purely situational constraints of early childhood' to the adult capability for abstract thought. Children, he argued, require the support of real situations and objects with which to work out ideas through play. Thus play both allows children to consolidate their understandings of their world and facilitates their development of the representational abilities they will use to think through ideas as an adult. As further evidence to support this view, Vygotsky noted that certain types of children's play (mostly play with objects and pretence) are often accompanied by self-directed or 'private' speech, where children are observed to self-commentate as they play. This phenomenon has been the subject of extensive and ongoing research within developmental psychology, and Vygotsky's view has been consistently supported (Winsler and Naglieri, 2003; Fernyhough and Fradley, 2005). The production of private speech is extremely common during these types of children's play and is clearly associated with episodes of challenge and problem-solving.

The role of play in supporting children's development of 'metacognitive' and self-regulatory abilities is also an area of current research development. Metacognitive abilities concern our developing awareness of our own cognitive and emotional processes, and our

development of strategies to control them. It is now clearly established that children begin to develop this awareness and control very early in life, that significant individual differences are quickly established which have long-lasting consequences for achievement and well-being, that these abilities are learnt, and can be taught, and that the various types of play form a powerful context for their development (Whitebread and Pino Pasternak, 2010; Whitebread, 2010, 2011).

Karpov (2005) has produced a useful review of research by Russian psychologists, who describe themselves as neo-Vygotskians, who have explored the development of cognitive self-regulation and control relating to particular types of play. For example, a study of three to seven year old children 'standing sentry' by Manuilenko (1948; reported in Karpov, 2005) supported Vygotsky's suggestion that children's use of verbal tools to regulate the behaviour of others was a significant factor in their development of self-regulation. Children standing sentry in a room containing playmates managed to stand motionless for significantly longer than when they were on their own. This appeared to be a consequence of the playmates 'monitoring' the 'sentry's' performance. Other studies of the emergence of self-regulatory abilities in young children within educational contexts have shown that these are mainly demonstrated in playful contexts of different types (Whitebread et al 2007).

A further body of research has investigated the role of pretence/socio-dramatic play in the development of emotional self-regulation. Berk, Mann and Ogan (2006), for example, have reported on a number of studies investigating how young children learn to cope with emotionally arousing or stressful events, particularly through this type of play. The evidence indicates that children spontaneously engage in socio-dramatic pretence play relating to stressful or traumatic situations arising in their experience (e.g.: going to the dentist, or the hospital), and that this type of play can be very productively facilitated and supported by adults in therapeutic contexts with children who have been subjected to abuse, experienced profound grief, etc. (Clark, 2006).

3.3 The five types of play

Given the general difficulty with defining play, and the recognition of its complexity, it is not surprising that there have been numerous attempts to categorise different types of play. As Moyles (1989) has demonstrated, for every aspect of children's development, there is a form of play. However, in the contemporary psychological literature the various kinds of play are generally divided into five broad types based upon the developmental purposes which each serves, partly arising from the evolutionary analyses to which we have referred above, and how each relates to and supports children's learning. These types are commonly referred to as physical play, play with objects, symbolic play, pretence/ socio-dramatic play and games with rules. Although each type of play has a main developmental function or focus, arguably all of them support aspects of physical, intellectual and social-emotional growth. From all the available evidence, a balance of experience of each of these types of play is likely to be beneficial to children's development.

Within this section, the main psychological benefits of each of these types of play and their typical developmental trajectories in physically and psychologically healthy children are described.

<u>Physical play</u>

This type of play was the earliest to evolve and can be observed in some reptiles and amphibians and most, if not all, mammals (Power, 2000). In human children it includes active exercise play (e.g.: jumping, climbing, dancing, skipping, bike riding and ball play), rough-and-tumble (with friends, siblings or parents/ guardians) and fine-motor practice (e.g.: sewing, colouring, cutting, junk modelling and manipulating action and construction toys).

Exercise play begins to emerge during the second year of life and typically occupies around 20% of children's behaviour by the age of four to five years. The evidence suggests that this type of play is related to children's developing whole body and hand-eye co-ordination, and is important in building strength and endurance (Pellegrini and Smith, 1998).

The most extensively researched aspect of physical play, however, is 'rough-and-tumble'

play. It includes chasing, grappling, kicking, wrestling and rolling on the ground and appears to have evolved as a mechanism through which children learn to control aggression. It emerges slightly later than exercise play and is typical amongst pre-school children. However, like most types of play, it continues to be enjoyed, usually between family members and close friends, right into adulthood. It is easily distinguishable from actual aggression by the evident enjoyment of the participants, and appears to be wholly beneficial. The research evidence suggests that it is clearly associated with the development of emotional and social skills and understandings. In human children, it is associated with the development of strong emotional bonds, or attachments, between children and their parents, and with school-aged children's abilities to understand emotional expressions (Jarvis, 200). A study by Mellen (2002), for example, looked at father-son rough and tumble behaviours that involved direct body contact in 157 suburban families in the United States and found that it related very strongly with three-year-old sons' social competence, as demonstrated in pre-school.

There is a concern that children, largely as a consequence of the pressures of urban living discussed above, with the loss of natural environments and concerns about safety, are over-supervised and do not have the opportunities for 'risky' outdoor physical play that supports their developing independence, resourcefulness and self-regulation. A general recognition of this concern is at the basis of pressures to provide outdoor play spaces for children living in urban environments. Amongst early years practitioners these concerns have led to a recent resurgence in the provision of outdoor play, and an increasing interest in Forest schools and the outdoor schools in some areas of Scandinavia (Tovey, 2007; Frost, 2010).

Fine-motor play refers to a wide range of activities which support young children's development of their fine-motor hand and finger co-ordination skills. These activities are often solitary, can be beneficially supported by an adult (e.g.: sewing, construction) and, due to their absorbing nature, help children develop their concentration and perseverance skills.

Play with objects

This second type of play is also widely observed in primates (Power, 2000) and in humans concerns children's developing explorations, as young scientists, of the physical world and the objects they find within it. Play with objects begins as soon as infants can grasp and hold on to them; early investigative behaviours include mouthing/biting, rotating while looking, rubbing/stroking, hitting and dropping. This might be described as 'sensori-motor' play when the child is exploring how objects and materials feel and behave. From around eighteen to twenty four months toddlers begin to arrange objects, which gradually develops into sorting and classifying activities. By the age of four years, building, making and constructing behaviours emerge.

As with all other types of play, play with objects often also incorporates other types of play, as it clearly has physical and manipulative aspects and often, in children, is carried out within a pretence or socio-dramatic context. When young children are making or building, they are also often developing a story or narrative. It is a relatively well-researched type of play, as it is distinctively related to the development of thinking, reasoning and problem-solving skills. When playing with objects, children set themselves goals and challenges, monitor their progress towards them, and develop an increasing repertoire of cognitive and physical skills and strategies. A study by Pellegrini and Gustafson (2005), for example, in which three to five year olds were systematically observed over an entire school year, demonstrated that the amount of playful exploration, construction and tool use in which children engaged predicted their subsequent performance on physical problem-solving tasks. Play with objects is also particularly associated with the production of 'private speech', with children commonly commentating on their activity. This appears to have the function of helping the child to maintain their attention, keep their goals for the activity in mind, monitor their progress, make strategic choices regarding ways to proceed, and generally regulate themselves through the task. As a consequence, construction and problem-solving play is also associated with the development of perseverance and a positive attitude towards challenge (Sylva, Bruner and Genova, 1976).

Arising from these findings, a number of studies have investigated the use of constructional play as a kind of therapy with children in clinical groups characterised by problems with

aspects of self-regulation, such as autism and ADHD. Owens et al (2009), for example, carried out an eighteen week LEGO Therapy program with six to eleven year olds with high functioning autism and Asperger Syndrome. Maladaptive behaviours decreased significantly more in the LEGO group than in a matched no intervention control group.

Symbolic play

As we have discussed above, humans are uniquely equipped to use a wide variety of symbolic systems including spoken language, reading and writing, number, various visual media (painting, drawing, collage) music and so on. Not surprisingly, during the first five years of life, when children are beginning to master these systems, these aspects of their learning are an important element within their play. This type of play supports their developing technical abilities to express and reflect upon their experiences, ideas and emotions.

Play with language starts very early in life with children under the age of one-year-old playing with sounds, and, as they grow older, particularly playing with the sounds of the language or languages they are hearing around them. This play is a very active process and quickly develops into making up new words, playing with rhymes, and eventually young children's love of puns and other jokes with language. Extensive research has clearly established that this type of play is a powerful support for developing language abilities and, crucially, through its support for phonological awareness, impacts upon the ease with which young children develop early literacy skills (Christie and Roskos, 2006). By placing basic numeracy in meaningful, real life contexts, play involving counting and other basic mathematical operations similarly supports young children's ability to engage with formal mathematics with confidence (Whitebread, 2000; Carruthers and Worthington, 2006).

Until fairly recently play with the various visual media had been relatively less systematically researched. Recent work, however, has strongly supported Vygotsky's (1986) insight that there are very close links between early drawing and writing in young children's mark making. In fascinating studies of mark making amongst chimpanzees, for example, Matthews (2011) has shown that drawing was perhaps the earliest evolving type of symbolic representation, and continues to be a significant aspect of young children's

symbolic play. Studies of children's drawings have demonstrated how through drawing, children gradually increase their 'graphic vocabularies', and their ability to organise graphic elements into a pictorial representation (a kind of 'graphic grammar'), becoming increasingly able to use this mode of symbolic representation to express their meanings (Jolley, 2010; Ring, 2010). The evidence from these studies suggests that children's visual literacy (i.e. their ability to understand pictures, photographs, diagrams, scale models, plans, maps etc) is importantly enhanced by their experiences of playing with a variety of visual media.

Musical play is another very under-researched area, despite being a ubiquitous and highly significant form of play in all human cultures. From a very early age, children sing, dance and delight in exploring and making sounds of all kinds, with their own bodies and with all kinds of objects. In extensive research of early mother-infant pre-linguistic interactions, Trevarthen (1999) has clearly illustrated the role of the human infant's innate response to rhythm and sounds in establishing early communicative abilities. A recent review of research in this area concluded that it seems likely that musical play, partly as a consequence of its powerfully social and interactive characteristics, supports a wide range of children's developing abilities, including those related to social interaction, communication, emotion understanding, memory, self-regulation and creativity (Pound, 2010). In a study which involved 96 four-year-olds in joint music making, for example, Kirschner and Tomasello (2010) showed that these children significantly increased subsequent spontaneous cooperative and helpful behaviour, relative to a carefully matched control condition with the same level of social and linguistic interaction but no music.

Pretence/socio-dramatic play

In the urbanised, technologically advanced modern world, this is clearly the most prevalent type of play amongst young children, emerging around the age of one year old. It is also the most heavily researched. High-quality pretend play has repeatedly been shown to be very closely associated with the development of cognitive, social and academic abilities. Studies have reported the impact of playworld experience on narrative skills in five to seven year olds (Whitebread and Jameson, 2010), of pretence play on deductive reasoning and social

competence, and of socio-dramatic play on improved 'self-regulation' among young children who are prone to be highly impulsive.

A range of studies have supported Vygotsky's (1978) insights concerning the impact of this type of play on children's representational and self-regulatory abilities (Karpov, 2005). This is also a type of play in which a high prevalence of 'private speech' is commonly observed (Berk, Mann and Ogan, 2006). This type of play is often characterised and perceived as 'free play'. Paradoxically, however, a number of studies have shown that, in fact, it makes some of the greatest demands on children's self-restraint, or self-regulation. During socio-dramatic play, in particular, children are obliged to follow the social rules governing the character they are portraying. Berk and colleagues report a number of studies with three and four year olds demonstrating a clear link between the complexity of socio-dramatic play and improvement in social responsibility. O'Connor and Stagnitti, K. (2011) have recently reported on a study of thirty five children aged five to eight in special schools, some of whom were offered a pretend play intervention. Findings revealed that the children participating in the play intervention, compared to a matched group who did not, showed a significant decrease in play deficits, became less socially disruptive and more socially connected with their peers.

An aspect of socio-dramatic play which often causes concern amongst parents and teachers is that related to play with guns. However, the research evidence suggests that these concerns are misplaced and that attempts by adults to discourage or forbid them are generally counter-productive. Gun play, similar to rough-and-tumble, is easily distinguishable from real aggression or violence. In this kind of play, as in all other aspects of socio-dramatic play, children are developing their co-operative and social skills in contexts which are salient to their interests, and which arise from their real and vicarious experiences (Holland, 2003; Levin, 2006).

Games with Rules

Young children are strongly motivated to make sense of their world and, as part of this, they are very interested in rules. As a consequence, from a very young age, they enjoy games with rules, and frequently invent their own. Opie and Opie's (1959) collections of children

games and folklore are a testament to children's love of games with rules. These include physical games such as chasing games, hide-and-seek, throwing and catching etc. and, as children mature, more intellectual games such as board and card games, electronic and computer games, and the whole variety of sporting activities.

As well as helping children to develop their understandings about rules, the main developmental contribution of playing games derives from their essentially social nature. While playing games with their friends, siblings and parents, young children are learning a range of social skills related to sharing, taking turns, understanding others' perspectives and so on (DeVries, 2006).

The use of electronic and computer games by today's children is another particular area of anxiety for parents and teachers. The concerns here relate to violence and to the addictive nature of some games. However, the evidence in this area is equivocal. A recent survey of 346 children from the 7th and 8th grade of seven elementary schools in the United States, for example, found that playing videogames did not appear to take place at the expense of children's other leisure activities, social integration, and school performance. There was also no significant relationship between the amount of time children spent on videogames and aggressive behaviour. Furthermore, a positive relationship was found between time spent on videogames and a child's intelligence (Van Schie and Wiegman, 1997). Other studies in the UK have shown, furthermore, that well-designed computer games offering open-ended or problem-solving challenges to children are likely to share some of the benefits of problem-solving or constructional play with objects (Siraj-Blatchford and Whitebread, 2003).

3.4 Environmental and social factors supporting or inhibiting play

There are two types of factors which influence the extent to which children are playful. These consist of environmental and social factors which support or inhibit children's natural playfulness and factors related to provision of opportunities.

A range of evidence has indicated that playfulness in children is both an indication of mental well-being and is supported by it. In this literature the two key issues which emerge relate

to young children's formation of secure emotional attachments and to the role of stress. Arising originally from the seminal work of Bowlby (1953) and Ainsworth et al. (1978), we now have abundant evidence that the formation of secure emotional attachments early in a child's life has significant consequences for healthy brain development (Swain et al, 2007), for emotion regulation and the ability to show empathy, form emotional relationships and friendships with others (Feldman, 2007), for emotional resilience (Schore, 2001) and for playfulness (Panksepp, 2001). Of particular importance in this area is the crucial role of playfulness in children's formation and maintenance of friendships, which are, in turn, fundamentally important in supporting healthy social and emotional development (Panksepp, 2007).

The role of secure emotional attachments in supporting children's ability to cope with anxiety and stress is also of particular significance. However, here the picture is quite complex, as a certain level of stress or unpredictability in the environment appears to support the development of children's resilience and playfulness, whereas high levels of stress clearly lead to a reduction in the amount of play in which children engage (Burghardt, 2005). The US National Scientific Council on the Developing Child (2005) make the distinction between the 'positive stress' which arises from children living in emotionally supportive and stimulating environments containing elements of uncertainty, which supports playfulness and the development of resilience, and 'toxic stress', where children are unsupported and subjected to severely and consistently stressful situations.

Lester and Russell (2010) have provided a powerful analysis of the 'environmental stressors' experienced by children across the world. From this analysis it is clear that some of the most vulnerable groups of children are those living in cities and urbanised contexts. Children living in poverty in these environments are often malnourished, a situation which, since playfulness requires metabolic energy (Burghardt, 2005), is often associated with low levels of play. As a consequence of the stress on their parents, they are also less likely to receive sensitive parenting leading to secure attachments. A number of studies in the UK, for example, have linked poverty, parental stress, inadequate parenting and children's mental health problems (Russell et al, 2008). Meltzer et al (2000) estimated that children

living in low-income households are nearly three times as likely to suffer mental health problems.

Living in urban environments can also have negative effects on the playfulness of children who are fortunate to live in supportive households, but whose parents, carers and teachers, perceiving a range of environmental hazards and dangers, become overly risk-averse and over-protect and over-supervise their children (Veitch et al, 2006). This leads us into the second category of factors which can support or inhibit children's play, which relate to opportunities provided for play. A study by Shier (2008) clearly illustrates this issue. This compared opportunities for play and attitudes to safety while playing outdoors between children living in Nicaragua and the UK. While the children in Nicaragua enjoyed a high level of independent mobility and developed self-reliance attitudes towards safety while swimming in lakes, climbing trees etc., the children in the UK were much more closely supervised and did not generally experience these opportunities.

This problem of parental over-supervision and over-scheduling of children has arisen quite recently, just in the last few decades. However, according to a survey of parental attitudes in sixteen countries (Singer et al., 2009) this is now a worldwide issue. Mothers in this survey, from countries across Europe and in four other continents, reported fears about allowing their children to play outside related to increases in traffic, crime, harassment and violence, possible abduction, dirt and germs, and many more similar issues. A report written for the UK National Trust (Moss, 2012) cites evidence that the area where children are allowed to range unsupervised around their homes has shrunk by 90% since the 1970s. At the same time, in the UK and many other countries, rates of obesity, self-harm and mental health disorders diagnosed in children have climbed significantly. This is attributed to a now well recognised phenomena of 'nature deficit disorder' (Louv, 2005) arising from children having very limited access to the outdoors and natural environments.

Even the most playfully inclined children will not be able to play, sufficiently for them to reap the benefits in terms of their learning and development, if they are not given the time, the space and the independence to develop their own spontaneous and self-initiated play activities. Lester and Russell (2010) provide a very useful review of the now quite extensive

literature studying children's use of urban and rural spaces for playful purposes. What emerges from this is that, in their play, children appropriate different spaces and features within their environment which are quite unpredictable by adults, and that the richest play spaces are mostly natural and unplanned. Many urban playgrounds, designed by adults, are often too neat and tidy, and essentially often rather barren as regards playful opportunities. The most successful urban play environments are 'adventure playgrounds' which are set up so that children can adapt them and build their own spaces, using a range of natural and man-made building materials (Bartlett, 2002).

Having said all this, of course, much very productive playful activity can and does take place in the home and (although unfortunately to a markedly declining degree in a number of European countries) in early care and educational settings and schools. Three key factors emerge from the research concerning the support for play in these environments. These relate to the level of stimulation, the quality of interactions with adults, and the degree of independence or autonomy offered to the children concerning their play. The latter two issues have been addressed earlier in the report. As regards stimulation, within indoor environments, this is mostly related to the provision of play materials and toys which support the five types of play identified earlier in this report. It has been established for some time, through a number of studies, that access to a variety of materials and toys is related to children's cognitive development (Bradley, 1985).

Within this general position it is well established that materials and toys support play most effectively when they are open and flexible and provide children with a wealth of opportunities for creativity, for social interaction with their peers and adults, for authorship and for deep engagement (Gauntlett et al., 2010). However, beyond this there is currently a paucity of research as to the qualities of specific types of materials and toys, related to the different types of play, which most effectively support playfulness, learning and development. Recent studies by Howard and colleagues, for example, have shown that a key factor in children engaging with and learning most effectively from activities with toys and other materials, is that they perceive the situation to be playful (Howard, 2002; McInnes, K., Howard, J., Miles, G., and Crowley, K., 2009, 2011).

3.5 The consequences of play deprivation

Given the abundant nature of the research evidence that play in humans is adaptive and is fundamental in supporting a whole range of intellectual, emotional and social abilities, it seems self-evident that children who, for whatever reason, play very little or not at all will be disadvantaged in their development. For obvious ethical reasons, however, direct studies of the consequences of preventing children from playing have not been conducted. The evidence in this area, therefore, is largely circumstantial or based on animal studies (mostly rats). Nevertheless, the evidence we have is compelling and seems strong enough, combined with that of the positive benefits of playful experiences reviewed above, to suggest that the provision of rich playful opportunities, across the five types indicated, would be a wise policy position for any society wishing to fully benefit from its human potential.

As we have indicated earlier, there is very clear evidence that children's cognitive development and emotional well-being are related to the quality of their play, and a number of studies have shown that individuals who are not well developed in these areas are not playful. Brown (1998), for example, found consistent child and adult play deficits in a study of criminally violent young men. In a recent study of one to two year old children in 'maltreating' families Valentino et al (2011) found that children in such families displayed less child-initiated play and less socially competent behaviour than children of the same age in non-maltreating families. The many studies of the severely deprived children discovered in Romanian orphanages following the breakup of the Soviet Union reported a range of severe cognitive and emotional deficits including abnormal repetitive or brief play behaviours, together with deficient growth and functioning in a number of key brain regions (Chugani et al, 2001). There have also been numerous studies of the Romanian children, and other children kept in orphanages in deprived circumstances, documenting their recovery once adopted and exposed to life in a loving, family environment including, of course, rich play opportunities. The difficulty with much of this evidence, of course, is that the lack of play, or its provision, is just part of an overall pattern of deprivation or provision, and so it is impossible to conclude that the play experience per se was entirely responsible for the outcomes. Perhaps more telling evidence, however, arises from studies where playful opportunities are introduced to children while they are still living in the orphanage. Taneja

et al (2002), for example, introduced a structured play regime into an Indian orphanage and reported highly significant gains on measures of motor, cognitive and social functioning. Fearn and Howard (2011) have recently published a very useful review of studies of play therapy as a resource for children facing adversity.

The other main area of research which has provided evidence relating to play deprivation, but which also has obvious limitations, has involved studies with rats. Rats have often been chosen for psychological research as they are highly intelligent mammals and learn quickly. They are also highly playful. As with humans, further, they present significant individual differences. Pellis and Pellis (2009) have been pre-eminent in research concerned with play in rats and have discovered clear relationships between their level of play behaviour and significant physiological changes in their brains. For example, playful rats have been shown to have significantly elevated levels of brain-derived neurotrophic factor (BDNF), which is recognised to have a central role in developing and maintaining neural plasticity (or, the ability to learn). They have also demonstrated that play supports novel neural connections and changes the architectural structure of significant brain regions. Play deprived rats became more aggressive to other rats, were less able to mate successfully, and showed heightened levels of fear and uncertainty in novel environments.

3.6 The work and views of European play researchers

As part of the process of putting together this review, eight leading play researchers from across Europe were specifically consulted. They were asked to respond to a number of questions concerning the nature of their research and their views on the value of play, existing provision for play in their countries, the advent of screen-based play and the role of adults in children's play. The information and views they submitted on these issues are summarised in this final section of this review of the research literature, and their most recent research papers are listed in the bibliography in Part 6 of this report. The eight experts consulted, listed in alphabetical order of their countries, were as follows:

Denmark: Dr Stig Broström, Centre of Early Childhood Research, Department of Education, Aarhus University

France: Prof Gilles Brougère, Institute of the Sciences of Play, University of Paris 13

Germany: Dr. Martin R. Textor, Institute of Education and Futures Research, University of Würzburg

Italy: Prof Emma Baumgartner, Department of Developmental and Social Psychology at Sapienza, University of Rome

Poland: Prof Bożena Muchacka, Pre-school and Early Education Institute, Pedagogical University of Cracow

Spain: Imma Marín, President of International Play Association in Spain

Sweden: Prof Ingrid Pramling Samuelsson, Department of Education, Göteborg University

United Kingdom: Dr Justine Howard, Centre for Children and Young People's Health and Well Being, Human and Health Sciences, Swansea University

<u>Research interests, questions and findings</u>

Most of the research concerned with play carried out by these European experts is concerned with play in children from birth to six years. This research is predominantly concerned with the impact of play on development and play in pre-school and educational settings. Specifically, four main topics are addressed, related to:

- the definition of play and its distinction from other activities,
- the benefits of play (is it beneficial, and if so, should we encourage it, and how do we encourage it?),
- play and the curriculum (how should play be integrated into curriculum, should educative play only be integrated into it, should it be structured or free?)
- the role of adults (parent/teacher) in children's play.

In addition, Baumgartner has also researched gender issues in relation to children's play.

The findings from this European research emphasise the importance of play. However, there are differences regarding the definition of play and while some research suggests that play is beneficial for children's cognitive development and is an important 'educational tool' (Broström, Pramling Samuelsson and Muchacka), others have suggested that children's informal activities can only be defined as play if they are free (i.e. outside adult direction or control) and that this more narrowly defined play is just one of a number of informal means by which children learn (Brougère, Textor and Howard). In addition, Baumgartner reports the finding that children spend 80% of their playing time in 'gender-segregated' groups.

Views concerning the nature and value of children's play

Views were also divided along similar lines regarding the value of play for children's development. Some felt that play is often romanticised by its advocates and needs to be researched in a more rigorous and 'realistic' manner. Children learn in many different ways, by observation and imitation, by rote, through reinforcement and by exploration, trial and error, all of which may or may not involve play. When children play, however, it was recognised that there are many opportunities for skill development, for example language and social skills, gross and fine motor skills, sorting and sequencing. There was more general consensus, however, that the benefits of play are related to its promotion of self-esteem, emotional wellbeing and resilience. When children engage in a task as though it is play, it was suggested, behavioural thresholds are lowered and they are able to try things out with only self-set targets and goals. As a result, resilience and esteem grow and children develop the confidence to meet physical, intellectual and emotional challenges.

Children learn and develop through activities other than play, Howard argued, but they learn and develop more effectively through activities that are play. Marín, Muchacka and Broström expressed the view that play is beneficial as it is children's natural way of learning and exploration. However, Baumgartner argued that viewing play as a complex set of different behaviours would be more productive in relation to understanding its contribution to development. In general, however, there was consensus that all types of play can be beneficial, and Howard argued that children need the opportunity to experience a variety of activities that will develop their full repertoire of play skills. Therefore, opportunities for all

different types of play matter. Broström, Texter and Muchacka particularly emphasised the importance of socio-dramatic play in children.

The provision for children's play

The view of our experts regarding provision for children's play were also somewhat divided, with those from Denmark, Germany and Sweden believing that the children in those countries had good opportunities for play, whereas the experts from the other five European countries believing they were insufficient. In Italy, France, Poland, UK and Spain the view was that there is a growing tendency to reduce play time in children's lives, both at school and home, in order to increase time for 'learning' (learning and play are seen as separate concepts). The emphasis is on academic performance, especially in reading and maths. Also, Textor expressed the view that, although there is good provision, play and 'learning through play' is quite structured in Germany. In Spain, Marín suggested that play is not completely separated from learning, and is only valued as a means to certain valued results, such as learning, but not as a process on its own right.

Benefits and concerns regarding screen-based play

In response to a question concerning current anxieties regarding the recent rapid increase in screen-based play, the European experts took a rather balanced view. While it is clearly the case that we live in a digital society and accordingly video games and other screen-based technologies are a part of 21st century children's lives, the evidence that this is at the expense of, or directly opposed to, physical and outdoor play is not clear. As we have reviewed earlier in this report, if the amount of time children spend playing outdoors has declined, this appears to be a result of changing attitudes to risk in urban environments rather than to an increase in video game technology. However, excessive, solitary screen-based play in early childhood is recognised to be problematic if it limits the development of children's other play skills, and links have been established in this case with difficulties in social development, obesity and so on.

The experts also point out clear evidence of a range of benefits arising from screen-based play. For example, there are studies that indicate physical benefits of video games, such as quickened reaction time. In clinical studies video games have been successfully used in

order to increase children's compliance to medical treatments. Videogames can increase children's tolerance to frustration. They are also often very active and mentally stimulating and cooperative, with many children playing games with friends and with parents. Indeed, there is some evidence that well-designed videogames can enrich play resources for children and their families.

The role of adults in children's play

The role of adults in children's play is a complex and under-researched area and so, not surprisingly, a number of slightly different views were expressed by our European experts. On the one hand Broström and Texter expressed the view that the full potential of play can only be unlocked by active teachers or parents. On the other hand, Baumgartner, Marín and Muchacka were of the view that children's play doesn't need adult supervision. Adults should provide materials, safe spaces and toys to encourage children's play without interfering. However, these recommendations varied mostly in response to the situation in their own country rather than in substance. So, for example, Denmark has a lot of free play in schools and teachers tend not to involve themselves or participate in children's play, and so Broström, the Danish expert, recommended more adult involvement and more structure, which he believes would be beneficial for children. On the other hand, in France children's play opportunities are often more structured, and so Brougère, the French expert, recommended more free play where children make their own decisions. Clearly, both recognise that there is value in a variety of play situations, and so would recommend a balanced diet of free, child-initiated play, play between children and adults, and so on. This predominant view concerning a balance between adult-child play and adult-free play manifested itself most clearly in a general consensus around the view that an adult who pays attention, listens to the child and talks to them, will be more beneficial than an adult who structures and directs the child's activity. Certainly, some evidence suggests that, if an adult organises the play, children are more interested in capturing the adults' attention and are less motivated to participate with their peers in shared activities.

Howard expressed the view, however, that dichotomising 'adult directed v child initiated', 'work v play' or 'structured v unstructured' situations is not, in practice, particularly helpful. The key point, in her view, is whether the children perceive the situation as playful. Her

research suggests that it is possible for adults to operate as co-players with children, supporting and extending the play activities, while preserving the children's freedom and autonomy to develop the play as they wish.

Part 4. The work and views of European Play Organisations

In order to produce this report we also consulted with governmental, professional and charitable organisations across Europe concerned with the provision and enhancement of children's play opportunities. These organisations were asked to answer a number of questions about their work supporting children's play and to indicate their views on significant factors influencing the contribution of play to children's learning and development. There are around twenty to thirty major play organisations across Europe, from which a representative sample of national, international, governmental, charitable and professional organisations was contacted. We received detailed information from twelve organisations, concerning their work and their views on children's play. This information is summarised in this section.

4.1 The work of European play organisations

Play-related organisations in the EU come from different sectors and fulfil various roles with regard to the support and promotion of play for children. While most organisations come from the NGO/NPO sector (European Parent's Association (EPA), the International Play Association (IPA) Sweden, Playboard, the International Toy Library Association (ITLA)), others describe themselves as membership-based or professional associations (IPA World, Ludemos, Play Therapy International) representing a network of individual members, professionals or other local level associations. Some organisations are also part of the commercial sector (Playlink), which display commitment to social goals. Some organisations work closely with the ministries of social affairs, health, etc. of their respective countries, and describe themselves as being related to the government (Finland Ombudsman for Children); however most consider themselves as working fairly independently. The sectors which these organisations associate are also reflected in the nature of their membership and funding. Some of them are national and international associations or research networks, comprising a network of regional and local bodies or independent researchers (IPA World, EPA, ITLA, Ludemos). Some organisations also comprise individual members or professionals such as parents, teachers, playworkers, playground designers, planners, health professionals, social service officers, etc. (Playboard, Play Therapy International, IPA

Sweden). While the bulk of funding comes from membership fees and government funding, charitable donations and consultancy fees also form a part of the funding for these organisations, particularly those which function in the commercial sector.

Although the development and promotion of children's and young people's play is the overarching objective of most play-related organisations, each focus on specific issues. The various issues related to play that the organisations participating in our survey are working on include children's rights (IPA, Finland Ombudsman), life-long learning through play (EPA), risk-assessment (Playlink), providing opportunities and resources to play (ITLA, Playlink), play-therapy (Play Therapy International (PTI)), practitioner's training and support (EPA, PTI, Ludemos) and finally research and dissemination of information related to play (Ludemos, Finland Ombudsman).

Within these broad issues, play-related organisations carry out a broad range of activities. Organisations working within the Child's Rights domain focus their activities on advocacy, campaign support, legislation and policy development (IPA, EPA, Finland Ombudsman, ITLA). Those working closely with play practitioners, professionals, and other individuals related to the development of play-friendly environments provide specific training and training for these purposes, while disseminating information and research related to their particular area of activity or research (EPA, Ludemos, Play Therapy International, Playlink). Organisations and their associate members such as the ITLA, Playlink and Playboard directly support the development of play provisions such as toy libraries and the design and creation of 'playable places' and 'play days' for children.

Although the notion of play is commonly attributed to young children, most organisations claim to cater to a broad age-group from twelve months to eighteen years. However, in terms of the actual provisions available for play, a more detailed investigation is required to ascertain the age-groups which might be overlooked. It is important to note here that the Convention on the Rights of the Child (CRC) (United Nations, 1990) defines a child as '*every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier*' (Article 1, CRC).

4.2 Views of European play organisations on issues related to children's play

The European play organisations surveyed were also asked questions concerning their views on the nature and value of children's play, and on the level of provision in their country and across Europe. The responses provided by them in relation to these questions are summarised in this section.

Views concerning the nature and value of children's play

All the organisations that were surveyed agreed on the general view of play as natural behaviour or activity that is beneficial for children and is fundamental for their wellbeing and holistic development (cognitive, social, emotional, physical, etc.). Some organisations further stressed the fact that play and leisure is a right stated in the CRC.

However, an aspect in which the organisations differed from one another related to the view of play as a means to achieve other purposes as opposed to being an activity for its own sake. Thus, some organisations focused on the instrumental value of play for other purposes, such as education, the learning of values and skills, or health. For example, the response from the International Toy Library included the statement that:

'These [values and attitudes] include sharing, following rules, taking turns, valuing the choices of others, accepting losing, persevering until the activity is finished. This leads to open minds, good socialization, tolerance and resilience. Cultural games are highly valued as a means of preserving community culture. Parent/child play is encouraged to strengthen the family unit.'

Other organisations, however, focused on play for its own sake, seeing play as an activity or process. The organisations did not concern themselves explicitly with definitions of play, which were a major concern for the expert researchers, but when describing play as an activity, they used the following descriptions to express their views on the nature of children's play:

'[Play should be] spontaneous, flexible, unpredictable, imaginative and directed by them [the children]' (Playboard)

'[Children should be allowed] to take risks, make mistakes, have everyday adventures and test themselves and their boundaries' (Ludemos Associate)
'Play is spontaneous, self-motivated and controlled by the child. Play is not created by adults for children but by children themselves' (IPA)

The provision for children's play

The play organisations advocated the need for spaces and time for play, both in educational contexts and in the community. Within school the view was expressed that breaks between lessons are an important chance for children to engage in different kind of plays and games with their friends, and that it is, therefore, important for schools to have good outdoor facilities, with hard surfaced areas and fields with toys, equipment and natural elements to support their play. It was also advocated that outdoor play areas should be designed taking children's views and ideas into account.

It was generally perceived that there is a lack of provision for children's play in communities, arising from a lack of awareness of its importance. Children's time for play was also seen to be limited by too much school work, by safety concerns and lack of parental understanding about the importance of play, leading to an excess of adult controlled play. Eurochild reported that
'"time poverty" is an issue that is increasingly acknowledged across Europe due to most families requiring a dual income, a rise in single-parent families etc.'

The Finland Ombudsman reported on a survey of children's attitudes, run every year, concerning the implementation of the CRC. Typically the children express the view that the right to play is a very important right. They relate it to having fun, to being with friends and also to being a child. They also complain that their leisure activities are too performance-oriented and demanding and that they do not have enough free time of their own. The children would also like to have more non-competitive sports activities and 'activity clubs' not focusing on the rehearsing of one particular skill.'

From an international perspective, the International Toy Library Association provided statistics of the number of Toy libraries available per country, which varies from over 2,000

in the UK, and over 1,500 in France to only nineteen in Croatia and nine in Turkey. Toy libraries serve all children, including those with special needs. They are beneficial in the development of immigrant children and children living in poverty. Government support varies - most toy libraries survive on donations and volunteers.

Various organisations reported on examples of interventions and activities that they carry out to promote play. These activities can be classified according to different focuses:

- *Related to spaces for children to play*
  - Child friendly Cities Committee (IPA)
  - Design projects, public spaces (Playlink)

- *Related to training*
  - Positive PlayGrounds (Playboard)
  - Multi-Disciplinary Play (Play Shaper) aimed at 'senior management and professionals including: Councils, Planners, Landscapers and Designers, Highways and Transport, Health Professionals, Children Services and Schools, Police and Community Leaders.' (Playboard)

- *Related to play as an Activity or Interaction*
  - Play Quest Programme (Playboard) Supporting children to communicate their views, and take control over their play time.
  - Reclaiming Playspace (Playboard)
  - Promotion of the Play Cycle model of playful interaction; (Ludemos)
  - Play therapy (Play Therapy Int.) Development of play therapy competencies

Part 5. Policy Review and Recommendations

Based on their expertise and years of experience of working in the play sector, the European play researchers and the play organisations we contacted were also all asked to suggest policy recommendations for the European Union. This part of the report draws on these recommendations, and the research evidence reviewed in Part 3, to make what we would consider to be evidence-based and important policy recommendations. These recommendations, in the view of the current authors, would contribute to the provision for, and quality of, children's play opportunities to the benefit of the existing and future citizens of the European Union.

Encouragingly, the European Union has already made significant policy decisions in this area, which crucially build on Article 31 of the UN Convention on the Rights of the Child, (1990), which states that:

'States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child'.

On 15 February 2011, the European Commission presented *'An EU agenda for the Rights of the Child*'. This mainly focused on child-friendly justice and the protection of vulnerable children, and fully recognised the importance for society of providing for the developmental needs of children, including play. The document concludes as follows:

'A renewed commitment of all actors is necessary to bring to life the vision of a world where children can be children and can safely live, play, learn, develop their full potential, and make the most of all existing opportunities'.

On 12 May 2011, the European Parliament adopted a resolution on Early Years Learning in the European Union, which notes that the early years of childhood are critical for children's development and highlights that 'in addition to education, all children have the right to rest, leisure and play'.

This was followed on 20 May 2011 by the Council of the European Union adopting conclusions on early childhood education and care which included the agreement that measures should be taken to promote

'developmentally appropriate programmes and curricula, which foster the acquisition of both cognitive and non-cognitive skills, whilst recognizing the importance of play, which is also crucial to learning in the early years'.

The present report attempts to provide a review of the best available current evidence which would support this position, and to draw from this evidence suggestions as to more detailed policy recommendations for consideration within the European Union.

The recommendations of this report, and their justifications, are that the European Union adopts policies which:

1. Promote awareness and change attitudes regarding children's play

Several organisations such as the International Play Association (IPA), Ludemos, PlayBoard NI and the International Toy Library Association (ITLA) recommended policy changes at the international as well as national level, in order to promote public understanding and awareness of the importance of play. The IPA has been involved in the development of a 'General Comment' on Article 31 of the UN Convention on the Rights of the Child (UNCRC), for providing guidance to 'State parties' regarding the successful implementation of Article 31 and raise awareness about it. Recommendations made in this document (publication anticipated in 2013) will provide countries within the EU with concrete guidance regarding the practical implementation of Article 31, by identifying and removing the variety of potential obstacles that hinder the child's right to play. Most organisations also indicated the widespread lack of understanding of the importance of play to be a major barrier to children's play, and suggested various measures for addressing this issue. For example, IPA, PlayBoard NI and the ITLA highlighted the need for public awareness programmes, particularly aimed at shifting the attitudes of adults towards the presence of children in public places from something negative and problematic to one which understands the

child's needs to explore. Ludemos argued for implementing statutory policy changes in order to shift perceptions, and proposed introducing relevant performance measures of children's play, independent mobility or access to the outdoors into EU indices of child health and well-being as an appropriate mechanism to achieve this. ITLA pointed out that 'World Play Day' has proved to be an extremely powerful tool in advocating play and that it should be included in the UN Calendar of Events, in the same way as World Aids Day and Children's Day are.

Within the educational arena, as we discussed earlier in the report, a number of EU educational systems have followed an 'earlier is better' agenda, which is not supported by existing research evidence and which severely constrains playful opportunities even within the very early school years.

In general, while the health benefits of physical play are generally well understood, both within and beyond educational settings, the emotional and cognitive benefits of all five types of play are not nearly so well recognised, either by parents and the general community, or by educational and other policy makers. Given the crucial significance of playful activities for children's emotional well-being, their language development and their development of metacognitive and self-regulatory abilities (underpinning academic achievement, creativity and problem-solving), this enhanced understanding is vitally important.

2. Encourage improved provisions of time and space for children's play

The current constraints on provision in urbanised modern societies and contemporary educational systems have been reviewed earlier in the report. The play experts we consulted were all of the view that that there is a general lack of play spaces (especially in big towns and cities) throughout Europe. Children's play was viewed very strongly by our European play experts as being about exploring the environment, learning about society and living with others. The lack of open play areas in children's neighbourhoods was seen as a major barrier to these opportunities for growth provided by play. Towns and cities, in the view of our experts, need to be organised much more with children in mind. It needs to be possible for children to play in the street, to have local play spaces and parks and safe routes to them and to their schools, which children can access independently.

All the organisations responding to our survey also advocated more play provision for children, in terms of time and space, along with additional play-based activities and materials. For example, Ludemos and PlayBoard NI recommend school-based, freely chosen and self-determined play programmes supported by appropriate adults, both during and after school. Informal outdoor activities should be encouraged, coupled with longer school breaks for promoting more physical activity during school. A standard for the amount of time for play during the school day (break-time and lunchtime) needs to be established and incorporated into school inspections. Another suggestion by Ludemos involves making swimming free for children under sixteen, such that all children are able to swim by the age of seven (as in the Netherlands). Such a step would not only enable children to be more independent and confident when around water, but also to develop healthier lifestyles.

Recognition of the need to have free, accessible and child-friendly places for children to play has been highlighted by several organisations as a crucial step towards ensuring children's right to play. Suggestions to implement these range from examining successful initiatives at creating 'child-friendly cities', such as Rotterdam in the Netherlands, and encouraging comparative policy research into child-friendliness in relation to planning and land use. Suggestions have also been made to review and change planning policies such that they fully incorporate planning and land-use guidelines that are compatible with the needs of children and young persons and develop indicators of child-friendly communities. Cross-sector training has also been recommended for those who plan, design, build and manage local communities to understand the importance of children's play and their role in creating child-friendly public spaces.

ITLA made several recommendations regarding providing toy libraries for children in various locations that are used or inhabited by children, such as schools, public libraries, community centres, play parks, children's hospitals, etc. These facilities can provide children with an opportunity to play while promoting their learning and wellbeing in several aspects of their lives. Highlighting the therapeutic aspects of play, Play Therapy International advocate additional therapeutic play provisions in educational and non-educational settings.

Finally Eurochild made an extremely important point linking play provision to issues of social justice and development of a socially healthy society:

'It is crucially important to address play from the perspective of social inclusion and opportunities for children that face social marginalization and discrimination. There is an ever widening gap in the opportunities children have according to their parents' social and economic background. Increasingly extra-curricular activities including access to play spaces have to be purchased, exacerbating social inequalities. Conversely, public investment in play can make an important contribution to social inclusion and equal opportunities.'

3. Support arrangements enabling children to experience risk and develop resilience and self-reliance through play

In general, the evidence suggests that as societies are becoming more urbanised, and more children are living in cities, attitudes to risk and safety are currently impeding children's opportunities for unsupervised free play, which is required if they are to reap the maximum benefit from their play experiences. The consensus view of the European play researchers we consulted was clearly that it is important that children experience risk and that meeting challenges and learning how to manage risk is one of the main elements of play and should be supported and encouraged. Unfortunately, but understandably, in the view of our play experts, parents, carers and teachers today, across Europe, are becoming too risk–averse, and so over-supervise and over-schedule children to the detriment of their play experiences.

Re-establishing a more evidence-based balance between the demands of safety and the needs of children to play freely, particularly in natural outdoor environments, was a priority expressed by all the organisations consulted. The response from Playlink is typical of the views expressed:

'This is an extremely sensitive area and needs to be addressed thoughtfully. In general we would say that children and teenagers suffer from too much attention from adults so far as their free time is concerned. In that sense, we believe more 'benign neglect' is required. In terms of supervised, specifically play provision, we endorse a playworker – 'low

intervention, high response' - approach seen in the best adventure playgrounds. Equally, it is vital that support for a playwork approach in certain settings should not dilute the absolute need for there to be more opportunities for children and teenagers to play without adult presence or supervision. This is a complex area, obviously.'

There was general agreement that the application and understanding of safety rules and standards has had an effect on the quantity and quality of play provision that is offered to children across Europe, and that there is a danger that the pursuit of a culture of blame and compensation results in discouraging local authorities from providing any or adequate play facilities.

The European Union policy making community could, therefore, make an important contribution by promoting research to identify the ways in which the interpretation of safety issues is currently frustrating children's opportunities to play freely, by consulting with children about their perceptions concerning play and risk and the manner in which adults currently manage it, and by revising EU standards for play equipment, reforming the way these are drawn up and applied.

Other suggestions from European play organisations included promoting the use of natural materials in playground designs, giving exciting opportunities for children to learn about risks, moving towards an agreement that national minimum standards for all childcare settings include quality standards for play, as well as safety and well-being, and work with the media to overcome the active role they take in manipulating the public's perception of risks in order to promote the positive characteristics and outcomes of risk.

4. Establish funding agencies that promote play and play research

It was noticeable as we conducted the surveys of European play researchers and organisations that there were actually remarkably few of the former and that many of the latter operated on very limited funds provided by government, membership subscriptions or charitable giving. Given the importance of high quality play opportunities for the education and development of the children of Europe, particularly when they face major economic, social and environmental difficulties, this is an unfortunate and unwise situation. It is clear from this review that core funding needs to be provided for agencies that promote play and

for a much more significant research effort. There is a vital need to connect research, practice and policy to meet the play needs of children and young people, families and communities across Europe. Ludemos suggested a 1% tax on games, toys and junk food marketed at children to support the funding of play agencies and research.

A number of significant areas where further research is clearly required have been highlighted in this report. In particular, the ways in which adults can most productively participate in children's play, in domestic, leisure and educational settings, could advantageously be much more thoroughly investigated. The processes by which play supports the development of crucial metacognitive and self-regulatory abilities are also only now beginning to be researched. The specific types of play most likely to support children's emotional development, including their resilience to stressful events, and the therapeutic use of play for children with severe emotional and/or cognitive disabilities are also other under-researched areas. Several of the play experts and organisations we consulted also had specific suggestions. These included research related to:

- the benefits of different types of interventions aimed at promoting play, independent mobility and contact with nature
- children and young people's ideas about, and perceptions of, play
- the benefits of play in toy libraries (ITLA)
- the benefits to development of playing with specific toys and games
- the barriers to playing including policy on planning, traffic, housing and open space, schools and childcare (Play Board NI).

Alongside a major research push, extensive training for all those involved in the care and education of children, concerning the psychological processes embedded in playful activity, the essential qualities of play, the role of adults in supporting it and its benefits for learning

and well-being is vitally important. Currently, the research in this area is very far ahead of public understanding, and of much of the practice of parents, and care and educational professionals. To make the improvement of play opportunities a reality for the children of Europe, this must be a priority in any policy development.

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Toy Industries of Europe (TIE) (www.tietoy.org) is the trade association for the European toy industry, which comprises over 25% of the total world toy market. Members of TIE include corporate companies (Artsana, Bandai, the Ferrero Group, Hasbro, Hill Toys, Hornby, the Lego Group, Mattel, Schleich and Spin Master) as well as national associations from Bulgaria, France, Germany, Italy, the Netherlands, Spain, Sweden, the UK and the Nordic region.

TIE is proud of the contributions made by toys and play to the psychological, physical and social development of children and to society in general. TIE commissioned David Whitebread, Senior Lecturer in the Faculty of Education at the University of Cambridge, to draft a report on the value of children's play.

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