A Panorama of Play

Digital Futures Commission

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DIGITAL FUTURES COMMISSION
Innovating in the interests of children and young people

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The Digital Futures Commission

The Digital Futures Commission is an exciting research collaboration of unique organisations that invites innovators, policy makers, regulators, academics and civil society to unlock digital innovation in the interests of children and young people.

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Foreword

Children and young people are very often the forgotten demographic in the design of the digital world. Early adopters and enthusiastic participants, they still remain marginalised in the imaginations of those that are building the future. The Digital Futures Commission was set up to ensure an exciting research collaboration of unique organisations that invites innovators, policy makers, regulators, academics and civil society to unlock digital innovation in the best interests of children and young people.

In starting with the concept of 'play', the Commission is tackling from the 'ground up' what it means to design a digital world with children's agency and rights not merely in mind but as a core value in the production of products and services. This first paper seeks to understand what the essential elements of play are, and will inform future interrogations of play in the digital world. In our sights is not to prevent young people's engagement, but to make that engagement fruitful and rights-respecting.

5Rights Foundation is extremely grateful to our Commissioners for the insight and experience that they bring and for their commitment to interrogate what it means to reimagine the digital world with the best interests of children at the centre. We are also grateful to Professor Sonia Livingstone OBE and her team. Over a three-year period, she will develop three strands of work – researching ***Play in a digital world*** and ***Beneficial uses of education data*** and creating rights-respecting ***Guidance for innovators***. We also want to acknowledge the broad enthusiasm of the academic community for this project, and the children and young people who remain our focus and our guides.

– Baroness Beeban Kidron OBE

Play in a digital world

There's something about children playing that seems to capture the essence of childhood and that the public greatly wants to preserve and foster for children growing up in a digital world. The qualities of play, especially of what is often called 'free play,' go to the heart of children's agency, freedom and development. However, we don't yet know, or agree on, what good looks like for children's play in a digital world.

Before we can consider how play is manifest in the digital world, we must understand the nature of children's play. We were delighted to invite Dr Kate Cowan to undertake this research review so that the Digital Futures Commission can:

- Learn from the rich literature about how children's play has been conceived, researched and debated, from diverse perspectives;
- Understand why play matters and use this understanding to foreground the prototypical qualities of children's free (or child-led) play.

The qualities of free play identified in this review will guide the subsequent work of the Digital Futures Commission in developing its agenda to enable and nurture play for children a digital world. What emerges clearly is the importance of children's agency in a world not generally of their own making or much under their control.

- Professor Sonia Livingstone OBE

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A Panorama of Play - A Literature Review

Kate Cowan

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Summary

- Play is an important part of children's lives. Yet adults find defining and understanding play a challenge. It has received considerable attention from a number of perspectives over time, including philosophy, psychology, biology, education and anthropology.
- This narrative literature review, commissioned by the Digital Futures Commission, considers different theories and insights about the nature of play and asks how and why play matters for children aged from birth to 17.
- The review focuses particularly on the concept of free play, where children have a high degree of choice and control. Free play is valued particularly for its role in children's cognitive, social, emotional and physical development, for fostering creativity, imagination and problem-solving skills, for education and learning, and for supporting health and wellbeing.
- Despite the evident benefits, play's significance often remains overlooked. Children's right to play has been considered a 'forgotten right', often constrained by factors such as negative adult attitudes to play, lack of play spaces and limited time for play.
- There are both synergies and tensions between children's own views on what free play is and why it matters to them, and the values of adult-directed play, or free play 'put to use' by adults, for instance in education, therapy or tied to social initiatives relating to physical and mental health.
- The review identifies prototypical qualities of free play, rooted in children's experiences and multidisciplinary research on the value of play for children. Recognising that these are not necessarily exhaustive, absolute or universal, it concludes that these qualities encompass:
    - Intrinsically motivated
    - Voluntary
    - Open-ended structure
    - Imaginative
    - Stimulating
    - Social
    - Emotional resonance
    - Diversity of forms
- These important qualities of free play can guide an agenda for providing and nurturing play, including play in a digital world.

Introduction

Play has been researched, analysed, interpreted and discussed at length from a variety of perspectives and disciplines over time. Yet “play has been notoriously difficult to define” (Zosh et al, 2018, p. 1) and its importance is easily undervalued (Moyles, 2012). The diverse forms play takes and the complex, flexible nature of play itself make for a broad and challenging area of research, policy and practice that continues to intrigue and puzzle in equal measure.

This narrative literature review draws on theory and research concerned with play among children from birth to seventeen, from across the social sciences and humanities, and relevant to children in the UK. It considers play broadly and generally, rather than focusing specifically on digital play.

Given the enormity and wide-ranging nature of the subject, any review of play is necessarily partial. Such a review also presents a number of questions and challenges. Who defines ‘good’ play and on what terms? How free is children’s ‘free play’ when time, spaces and resources for play are often designated and designed by adults? Does research recognise the play experiences of babies, toddlers, children and teenagers equally? Does it account for the diversity and plurality of childhoods?

The review examines some of these complexities, beginning by distinguishing the terms ‘play’ and ‘free play’. It then summarises research that has explored children’s own perspectives on play and the importance of free play to children themselves, and to cultures of childhood more broadly. This is followed by considering how and why play has been valued from various disciplines including psychology, biology, anthropology, education and philosophy. This includes its importance for children’s cognitive, social, emotional and physical development, for fostering creativity, imagination and problem-solving skills, and for supporting health and wellbeing.

Established ideas about play are discussed, as are the debates and tensions between adult views and children’s views. The primary focus is on the notion of free play, dubbed the ‘forgotten right’ (Hughes, 1990), while recognising the view that play is best explained as a spectrum spanning from adult-directed activity to children’s free play (Zosh et al., 2018). The review concludes by identifying the prototypical qualities of children’s free play.

Defining play and free play

Defining play has been the subject of much debate. This challenge is related to the hugely diverse and socially constructed nature of play. It is “a multidimensional construct that varies in meaning across time, culture, and contexts” (Cohen, 2006, p. 18), and is thoroughly interwoven with changing theories of childhood. Many follow Sutton-Smith's (1997) argument that, instead of seeking a precise definition, we should recognise play’s complexity and ambiguity through the lens of the multiple ‘rhetorics’ that invoke play in popular and academic discussion.

Although play is often seen as a distinct activity, it can also be considered a disposition, attitude, mode of experience or state of mind (Huizinga, 1938; Bruner, 1972; Malaby, 2007). It has been suggested that play and playfulness “can permeate all spheres of life” (Lindquist, 2001, p. 21) and that being playful has the ability “to transform virtually any environment to make it more stimulating, enjoyable and entertaining” (Barnett, 2007 p. 949). From such a perspective, play is not necessarily a singular or discrete activity but can be thought of as being interwoven throughout daily life, happening well beyond places and moments that are designated as ‘playtime’.

The word ’play’ is most often used in relation to young children, when we easily recognise activities such as role-play, construction play and play with toys. However, the psychobiologist Colwyn Trevarthen (2017) argues that infants, even new-borns and babies in utero, can be considered playful through their shared expressions with those around them. While play for young babies is focused on sensorimotor exploration, older children’s play incorporates objects and language among many other modes (Casby, 2003).

Play continues throughout childhood, even though older children may distance themselves from the word while continuing to engage in playful activities of various kinds (Burns & Irvine, 2011). Teenagers surveyed about their lives spoke of enjoying ‘hanging out’ with each other, including chatting and going out in their spare time (The Children’s Society, 2009). For instance, a twelve-year-old boy in a Scottish consultation on children’s play said, “I don’t really play anymore, just go about on my rollerblades or hang around with my friends, having a laugh, telling each other jokes” (Burns & Irvine, 2011, p. 9). This suggests that older children continue to engage in ‘playful’ activities but may not describe what they do as ‘play’, perhaps perceiving play to imply immaturity.

Nor does play stop at the end of childhood but can be considered a lifelong activity, with research from the fields of game studies and ludology pointing out playful elements of adult culture and society (Huizinga, 1938; Caillois, 1961/2001; Malaby, 2007). Play therefore begins in infancy and continues throughout childhood and adulthood, although the forms it takes undoubtedly change, as do the ways play is perceived and talked about by children and adults.

The word ‘play’ in English has several uses (for instance, playing a game, playing with toys, playing an instrument, playing a sport, performing a play), whereas other languages can have a more nuanced range of terms for play. Notably, Danish distinguishes ‘spille’ for playing structured games from ‘lege’ which suggests free play. Many of the attempts to define play emphasise the importance of the child-led or intrinsically motivated play that typically characterises free play (Rubin et al., 1983). Play theorist Roger Caillois

(1961/2001) argues play is best described as a series of core characteristics, such as being free (non-obligatory), uncertain (not predetermined) and unproductive (done for its own sake). Relatedly, children's play is activity that is 'desired' by the child (Vygotsky, 1978), where means are more valued than ends (Gray, 2017). Hence cultural historian and play theorist Johan Huizinga asserts that:

> "[Play] is an activity connected with no material interest, and no profit can be gained from it."
>
> (Huizinga, 1938, p. 13)

In effect, it is difficult to define play, because available definitions focusing on free play, acknowledge that play can be broader than this. A prominent case in point is the United Nations Convention on the Rights of the Child, which defines play as:

> "Any behaviour, activity or process initiated, controlled and structured by children themselves"
>
> (UN, 1989, p. 10)

Terms such as 'free play' (Jarvis et al., 2014), 'child-initiated play' (Bayley & Featherstone, 2013) or 'spontaneous play' (Hewes, 2014) are often used to distinguish children's playful self-chosen activities, as distinct from adult-led play, leisure and recreation. But it is nonetheless the case that these adult-led or other kinds of play go largely undefined, whereas definitions of play emphasise the qualities of free play in particular. Efforts to delineate free play as a type of play point, for instance, to the way that free play is concerned with internal rather than external rewards, and this gives it a particularly meaningful and engaging quality (The LEGO Foundation & UNICEF, 2018), whether it takes the form of fantasy play, object play, rough and tumble play or any other type of play (Hughes, 2006). They also point to the importance of imagination, most obvious in fantasy play although it is an element of all play (Caillois, 1961/2001). For instance, in rough and tumble play, fighting is established as pretend rather than real (Gray, 2017). As Huizinga puts it:

> "Play is a free activity standing quite consciously outside of 'ordinary' life, as being 'not serious', but at the same time absorbing the player intensely and utterly."
>
> (Huizinga, 1938, p. 13)

Children, too, tend to describe and identify play, as involving freedom, as well as control and choice without the involvement of adults (Einarsdóttir, 2014).

Further, where games and sports have externally imposed rules, free play does not. Yet, complicating matters, free play is likely to have an order and structure developed by the players and negotiated through the play itself (Rubin et al., 1983). For instance, a simple activity of going down a slide may deliberately become complicated by the player as they try to find new and varied ways of getting to the bottom (Rubin et al., 1983). Even play with rules can be imaginative, as players accept a fictional situation in which rules apply, and these rules are open to adaptation.

In this sense, free play has no fixed or predetermined goals, results or outcomes. This means it is characterised by uncertainty and can be considered unproductive (Caillois, 1961/2001). This can give free play an appearance of purposelessness, but many argue that the lack of fixed external goals and removing fear of failure offers unique freedom and flexibility to experiment (Bruner, 1972).

However, even when play appears to be free, it is likely to be structured by adults to some degree, including permitted times for play, available resources and design of play spaces. Some have argued that “the notion of a totally ‘free’ play environment is really a myth” (Siraj-Blatchford, 2014, p. 174), with adult aims shaping children’s play to greater or lesser degrees, for diverse purposes, and in implicit or explicit ways. Whether and how this free play can be guided or harnessed without undermining it is a point of contention in the research literature and in practice.

Critics are concerned that play may be ‘instrumentalised’, ‘pedagogised’, ‘colonised’ or ‘prescribed’ by adults (Goodley & Runswick-Cole, 2010; Lester & Russell, 2008; Rogers, 2013), framed within a ‘progress rhetoric’ that explains, privileges and justifies certain adult-approved forms of play over the play that children themselves intrinsically value (Sutton-Smith, 1997). Adult views of play may also ignore, avoid or prohibit the more challenging ‘transgressive’ aspects of children’s free play which, free play advocates contend, are in and of themselves important as children explore, experiment with and challenge established norms and constraints.

Defining play, and free play, is therefore challenging. This review uses the United Nations (2013) definition of children’s free play as something that is chosen, directed and controlled by children themselves. This distinguishes it from play that is more directly led by adults, and from recreation, which is understood as activities with a function, such as artistic, sporting or community engagement. However, many complexities exist, including the similarities and differences between children’s and adults’ views on free play, as this review will explore.

Children’s perspectives on play

When children are asked about what is important to them, play is consistently mentioned (e.g. The Children’s Society, 2009). From children’s perspectives, play is important for their enjoyment of life and what it means to be a child in the here-and-now (see Van Gils, 2007). Children tend to be clear about what is play and what is not (for instance, work or education), and generally they express a desire for more time and space for play of all kinds. However, despite an abundance of literature about children’s play, children themselves are infrequently consulted about their play experiences (Santer et al., 2007) and it has been noted that:

> “Remarkably little research focuses explicitly on what play actually means to children.”
>
> (Meire, 2007, p. 3)

This raises the question of whether we understand how children themselves view play (Wing, 1995). When children in England’s local play strategy consultations were asked if they thought adults played, they were dubious, with one child saying, “What you [adults] think is play is not what we [children] think” (11 Million, 2008, p. 17).

In an attempt to understand children’s perspectives on play, Burns and Irvine (2011) consulted children in Scotland aged 2-13 about who they play with, what they play, where they play, when they play and why play is important to them. What emerged was a strong sense that children play ‘everywhere’ (in especially designed play spaces, but also wherever they are), that children want more time for free play within their home life and school (and do not care as much as adults about perceived barriers such as the weather), and that not being able to play makes children sad.

The few studies that have sought children’s own understandings reveal that children define play as something you can choose to do (as opposed to have to do), something you can quit when you want (rather than have to finish) (Gray, 2017), something done with friends (rather than adults), and something fun (Rothlein & Brett, 1987; Wing, 1995; Howard, 2002; Theobald et al., 2015). Significantly, this suggests that children’s own conception of play is what adults more often call ‘free play’ – activities where freedom and agency is high, and adult involvement is minimal.

In their own definitions of free play, children emphasise the absence of adults as being an important feature (Wing, 1995; Howard et al., 2006). For instance, research on children’s spaces for play identified that children appreciate places that are away from supervision, including those that are secretive, safe and co-constructed by children themselves. These may be unmanaged or appear untidy, existing on boundaries or in between other spaces (Sobel, 2002; Kylin, 2003; Roe, 2006). Older children especially indicate a desire for freedom, autonomy and a wish to have a place of their own (Child Accident Prevention Trust, 2002; Henshall & Lacey, 2007).

Free play often involves making and breaking rules, playing with possible scenarios, and acting both creatively and destructively. Such qualities can mean play has an anarchic, chaotic, rebellious or purposeless appearance to adults. It may be rude, messy and noisy, and may challenge expectations or conventions. These qualities arguably make play a particularly powerful activity, not only in childhood but also throughout life. From this perspective, free play might be understood as a form of activism, where taking a 'what if' or 'as if' stance can help to challenge and deconstruct traditional ways of thinking (Poulsen, 2018). For instance, in the recent makerspace movement, playfulness is actively encouraged as a means of tinkering, experimenting, dismantling and iteratively designing (Marsh et al., 2017). This means the very 'transgressive' nature of play may make it a particularly distinctive and powerful activity.

These examples challenge romantic and idealised perspectives on play, showing that children may seek out experiences in free play that are taboo, risky, secretive, marginalising and disruptive, and as a result free play may be troubling or unsettling to adults. Such play may also be unsettling to children themselves, who often appreciate fairness and a degree of safety in their play. Indeed, children can appreciate adult intervention in order to foster play spaces that are safe and equitable, and to offer comfort and reassurance (National Playing Fields Association, 2000). This is not least because, although play is often characterised as being innocent, enjoyable and natural, children know that play can result in cruelty and marginalisation (Löfdahl & Hägglund, 2006).

For instance, Goodwin's (2006) case study of girls' play in Los Angeles examined how children excluded others through play, with degradation rituals used to sanction some friends and to bully others. Often this exclusion may target younger children or children with marked differences to the dominant group (e.g. ethnicity, language or physical appearance). Surveys of children have found racism from peers limited how and where some (ethnic minority) children were able to play (11 Million, 2008).

These examples present a challenging tension between every child's right to free play and their right to protection from discrimination and harm. In such instances, there may be an argument for adults intervening in free play in order to address cruel and marginalising behaviours such as racism and sexism, or to bring them to players' attention to support their own resolution.

Indeed, children can appreciate adult intervention in order to foster play spaces that are safe and equitable, and to offer comfort and reassurance (National Playing Fields Association, 2000). There is likely to be on-going reflection and negotiation surrounding the adult's role in free play, including a responsibility to protect children from serious harm. This may be particularly challenging as free play may, by its nature, happen in times and places where adults are not present or in control.

Hence Smith (2010) critiques a 'play ethos' in which relentlessly positive assertions are often made about the nature of play (particularly from a Western perspective). Relatedly, there are calls to avoid overly-romanticised ideas of play and to acknowledge aspects of play that may be more challenging (Grieshaber & McArdle, 2010). Perhaps the most significant among these is the question of risky play.

Risky play

A common and longstanding view of childhood is as a time of dependence and need for adult protection. However, it has been argued that adults' desire to provide safe and happy childhoods can downplay children's own abilities and resilience (Cunningham, 2006). When this concern for safety is taken to extremes, it may result in children's free play being highly regulated, monitored and restricted. It has been suggested that children do not want to be kept in such a 'cocoon' (Cunningham, 2006) with Gill (2007) arguing that children can become resentful of the degree to which adults are 'bubble-wrapping' their lives in the name of safety. A consultation with children aged 8-13 about their views on play and risk-taking found children expressed "a desire for more freedom, novelty and access to places where they could play" (Coster & Gleave, 2008, p. 25).

Risk-taking is a common feature of children's free play, often manifested in playing with physical experiences such as height, speed, impact, dangerous tools and exploring alone (Sandseter, 2009). The appeal of risky play seems to be the intense exhilaration that comes from fear and excitement, giving rise to feelings of enjoyment, thrill, pride and achievement (Stephensen, 2003), or as Gordon and Esbjorn-Hargens (2007) suggest, children at play are in control of being out of control.

In a survey of the leisure lives of children aged 11-14 in Gateshead, around 40% of children said they spent time in places they felt to be dangerous, such as wasteland, building sites and underpasses (Child Accident Prevention Trust, 2002). The findings point to a desire for freedom and autonomy, including being away from adults, to explore, and to have a place of their own (Child Accident Prevention Trust, 2002).

Contemporary playgrounds often include safety features such as perimeter fencing and rubberised flooring. Although this comes from a desire to minimise risk of accidents, it arguably results in a 'sanitised' and 'abortive' play experience (Wilson, 2012). In the 'Dangers of Safe Play' study (ESRC, 2000), children aged 5-16 argued that they would enjoy commercial playgrounds more if the equipment were more challenging, contrasting with an adult tendency towards making playgrounds safer.

In a consultation with children aged 8-13 about play and risk-taking, children expressed enjoyment in taking risks and felt there were benefits to doing so, including fun, challenge, improved fitness levels, confidence and self-esteem (Coster & Gleave, 2008). Risk-taking in play is seen as beneficial for helping children learn how to manage risks, to avoid more extreme risk-taking behaviours (including in later life), as having benefits for health and development, and for nurturing character traits such as resilience and self-reliance (Lindon, 2011).

However, there are significant forces pushing parents, professionals and other agencies towards risk aversion. Gill argues that due to concerns such as fear of litigation and wider blame culture:

> "Activities and experiences that previous generations of children enjoyed without a second thought have become troubling or dangerous, while the adults who still permit them are branded as irresponsible."
>
> (Gill, 2007, p. 10)

There are arguments that childhood is increasingly becoming undermined by risk aversion, where fears are not always in proportion to actual risk levels (Thomas & Hocking, 2003).

Play has been identified as a key element in children learning to appreciate, assess and take calculated risks (National Playing Fields Association, 2000). Although adults may have a well-meaning desire to protect children from harm, it has been argued that shielding children from all risk does not give them the opportunity to develop their own 'risk thermostat' (Adams, 2002), learning themselves what is safe and dangerous in relation to their own evolving capacities. The reasoning is that life is full of risk, so the best way to prepare children for life is to ensure they know how to judge risk (Danks & Schofield, 2006).

Children themselves have been found to demonstrate sophisticated understanding of risk (Coster & Gleave, 2008), and there have been calls for a more nuanced and balanced 'risk-benefit' approach to play:

> "Risk-benefit assessment means that the [play] provider considers two goals alongside each other: the goal of protecting children from avoidable serious harm, and the goal of providing them with stimulating, adventurous play opportunities."
>
> (Ball et al., 2012, p. 16)

From such a perspective, the answer is not removing all risk in play, nor is it ignoring genuine serious risks to children. This requires a balance between protection of children's safety and protecting children's right to engage in new and challenging activities, dispelling unhelpful myths and exaggeration of risk and instead promoting proportional responses to situations that might pose serious harm.

There is a complex balance between legitimate and necessary opportunities for free play (including play that is secret and private from adults), and adult responsibilities for child protection as noted above. Children themselves seem to acknowledge this tension. For instance, 79% of children aged 2-13 in Burns and Irvine's (2011) survey of children in Scotland said they thought it was good to have adults around at least sometimes when they played.

Approaches that support a high degree of children's choice, freedom and ownership of play include the UK's adventure playground movement. Emerging throughout post-war Europe with the intention of transforming bombsites into places for play, adventure playgrounds took inspiration from Danish 'junk playgrounds', where leftover construction materials such as wood, bricks, tyres and rope were available to children in designated play spaces (Shier, 1984). Having visited such a playground in Denmark in 1946, British landscape architect Marjorie Allen called for bombsites to be used for this purpose, with several adventure playgrounds developing throughout London and many still existing today.

Adventure playgrounds are characterised by an ethos of free play in environments open to a range of possibilities (Play England, 2012). In such settings, children are encouraged to build or shape spaces for play according to their own creative visions, particularly using natural and open-ended 'loose parts' (for example, cardboard boxes, tyres, sticks, rope, tarpaulin and stones). Within such settings, the role of supervising adults (known as 'playworkers') is to enable and facilitate play in as many ways as possible with minimal direct adult involvement, resisting "the urge to step in too soon or too frequently" (Casey & Robertson, 2019, p. 7). Proponents of adventure playgrounds argue that such settings offer time and space for free play on children's own terms, supporting wellbeing, resilience and understanding of risk (National Playing Fields Association, 2000; Play England, 2012).

Play and the cultures of childhood

The cultural historian Johan Huizinga argues that “culture arises in the form of play” (Huizinga, 1938, p. 46), and suggests that play is found as an element of adult social practices including religion, poetry, art and war. The writer Italo Calvino similarly argues, “Play has always been the mainspring of culture” (cited in Logsdon & Roman, 2000, p. 41). In other words, play is both shaped by culture (Schwartzman, 1976; Frost, 2012) and also significantly generated by children’s activities in ways that are closely intertwined with their identities, values and circumstances (James & Prout, 1997). Hence cultures of childhood are distinct to children themselves, and yet recognisable by and part of the wider society.

To understand what play means to children, some research closely observes and documents children’s lived experiences, contextualising these in relation to culture, society, materials (including toys) and environment (Brandow-Faller, 2018; Herron & Sutton-Smith, 1971). In their classic study of children’s playground lore and language in the UK, folklorists Iona and Peter Opie drew attention to children’s own playground cultures, including documenting clapping songs, skipping rhymes, chasing games and riddles (Opie & Opie, 1959). Rather than relying on adult accounts of children’s play or adult recollections of their own childhoods, the Opies asked children about their free play directly, recognising children as experts and keepers of play traditions. Their work responded to the common criticism that “the young had lost the power of entertaining themselves; that the cinema, the wireless and television had become the focus of their attention” (Opie & Opie, 1959, p. v). However, the examples they meticulously collected showed the vibrancy and variety of children’s play, including continuities with play over a century ago.

More recently, studies attending to children’s playground play highlight that children draw widely on various cultural resources, including traditional games, local legends, popular culture and media, often combining these creatively in unexpected ways through free play (Burn, 2011; Willett et al., 2013; Marsh & Bishop, 2014). Such perspectives recognise play as meaning-making; a socially-situated activity through which children both explore and respond to the world around them through multiple modes of communication (Kress, 1997; Potter & Cowan, 2020). For instance, Gaunt (2006) reveals the sophistication and cultural meaning of clapping and skipping games in her study, ‘The Games Black Girls Play’.

Play cultures are considered nonliteral and simulative (Garvey, 1977), meaning that resources often take on new meanings as they are used to stand for something else. This includes the inventive and transformative use of resources that are to hand, both material (toys, loose parts etc.) as well as embodied resources (gesture, voice, facial expression etc.). Play is therefore linked to symbolic representation in multiple modes, including language development, as things become ‘pivots’ between their real-life role and their imagined counterpart (Vygotsky, 1986). This characteristic means play often includes improvisation and can involve the iteration of ideas (The LEGO Foundation & UNICEF, 2018). At the same time, children draw on experiences from the culture and society of which they are a part and these form the ‘ingredients’ of much of their play (Gray, 2017; Potter & Cowan, 2020).

Children’s play has its own culture that is different and distinct to that of adults, and which adults may have trouble accessing or understanding (Opie & Opie, 1959). This means that children's play can take forms that adults may find surprising, disturbing or troubling. For instance, Olusoga (2009) notes that adults will often try to shut down young children's superhero and gun play, fearing that allowing such play might promote violence and aggression. Some education settings have adopted a 'zero tolerance' policy on all weapon-related play, illustrating that some play themes can be deeply troubling to adults. However, others have argued that such play is part of children's meaningful exploration of concepts such as power and fear (Rich, 2003).

Although play is often described as fun or enjoyable, including by children (Howard et al., 2006; Burns & Irvine, 2011), it can feature a wide range of emotions and may be emotionally 'affective' or satisfying to children in various ways, for instance in making sense of the world (Hill & Wood, 2019) and for its therapeutic qualities (e.g. Winnicott, 2009). Indeed, children's play often deals with big or serious issues. For instance, Hill and Wood (2019) studied a group of children aged 4-6 and found their play frequently included games related to death and dying. They argue that although such play might typically be considered taboo or unsuitable for young children, it reflects the role of play in forming working theories about existential matters of life, death, and the social, physical and natural world. Accounts of children's play after disasters such as the 9/11 bombings (Edstrom, 2003) and the New Zealand earthquakes (Bateman et al., 2013) reveal that children played out themes relating to these experiences. Sutton-Smith (1999) argues that play is therefore a means of exploring ideas and feelings in a safe way that gives a degree of distance and control.

Theorising the value of play

While children's perspectives are highly revealing of the nature and value of play, this review also considers how play has been approached from different disciplines and perspectives over time. As the following sections reveal, claims regarding the value of play draw heavily on cultural and historical conceptions of childhood itself.

Play has been recognised as a feature of childhood across cultures worldwide (Gosso, 2010), with archaeologists finding evidence of playthings from as early as the Palaeolithic Era (Fox, 1977). For instance, in medieval times play was seen as a dangerous distraction from more serious work (DeMause, 2006), with Puritanism viewing children as needing strict training and discipline, and positioning play as frivolous or even sinful (Smith, 2010). Today, play is often still regarded as the opposite of work, with playtime only earned when work is complete. Play theorist Brian Sutton-Smith (1970) suggests that in work-centred societies this can create a 'triviality barrier' surrounding the serious study of play.

Ideas from different historical periods highlight that ways of thinking about play are socially situated, shifting and evolving over time, and varying from culture to culture. In some communities (for instance, where children may have significant family care, domestic or work responsibilities), play can be viewed negatively and may be purposefully curtailed by adults (Gaskins et al., 2007). Nonetheless, forms of play appear to prevail, although this may be in unsanctioned moments 'within the cracks' of adult-controlled times and spaces (Lester & Russell, 2010). In other contexts, there have been long-standing efforts to understand play, and to articulate its value and significance for children's lives in the present and future.

However, Western thinking and Western European children have often dominated in play research (Edwards, 2000; Gaskins & Miller, 2009). Studies focusing on white and Western children continue to dominate, notwithstanding some exceptions (e.g. Salamone & Salamone, 1991; Nwokah & Ikekeonwu, 1998), leading to calls for further studies of play in diverse cultures and communities in order to understand play more fully. Roopnarine et al. (1994, 2012) draw attention to the problems that arise when Western values of play are applied in non-Western contexts. They remind us that what counts as valuable play varies within and across cultures, in turn shaping the space, time and resources for children's play.

Gaskins, Haight and Lancy (2007) identify three main societal orientations to play: that it should be 'culturally curtailed' (tolerated, but seen as limited in value, with certain types of play actively discouraged), 'culturally accepted' (useful for keeping children busy and out of the way, but not actively encouraged or supported) or 'culturally cultivated' (encouraged and viewed as important). The theories reviewed in this section fall mostly into the camp that encourages and cultivates play as important, albeit for different reasons.

Play as valuable for development

Towards the end of the 19th Century, biologists attempted to explain play's function by considering its role in evolution. Based largely on studies of animals, biological theories have often been applied to human play influenced by Charles Darwin's theories of evolution. Herbert Spencer considered play to be:

> "An artificial exercise of powers which, in default of their natural exercise, become so ready to discharge that they relieve themselves by simulated actions in place of real actions."
>
> (Spencer, cited in Burghardt, 2006, p. 30)

This 'surplus energy' theory of play argues that once energy is no longer needed for survival, the surplus can be released in play. In some ways, this view of play continues today. For instance, children may be encouraged to 'let off steam' by playing after other tasks have been completed.

Philosopher and naturalist Karl Groos saw greater functional significance for play, drawing on evolutionary theories to argue that play provides exercise and practice of skills necessary for survival. Groos argued that when animals play they are practising basic instincts such as chasing and fleeing. Extending these insights about animal play to humans, Groos saw the purpose of play as preparation for later life, holding that "the utility of play is incalculable" and that:

> "Perhaps the very existence of youth is largely for the sake of play."
>
> (Groos, 1898, p. 76)

Studying the evolutionary role of play, including its occurrence among humans, has led researchers to argue that playfulness is fundamental to the development of uniquely human abilities (Pellegrini, 2009; Whitebread, 2012). Psychologist Jerome Bruner (1972) noted particular parallels between a species' length of biological immaturity and their capacity for learning. He argued that "play appears to serve several centrally important functions" (p. 62), including trying things out with reduced risks and consequences, and exploring combinations of behaviour that would not happen in other situations. Bruner argued that humans, with a greater length of immaturity than other animals, are uniquely able to play more and for longer, and that this is a significant factor in humans' ability to learn.

Many arguments about the value of play have built on these evolutionary perspectives and developmental psychology. Developmental psychologist Jean Piaget (1936, 1945) charted children's 'normative' or typical development, including how this unfolds across particular stages of play. Based largely on observations of his own children, Piaget described a developmental sequence in children's play, from 'practice play' (mainly sensorimotor play in infants), through 'symbolic play' (representing objects, such as in fantasy play) to 'games with rules' (usually in coordinated play with others). Piaget mapped these onto his theory of developmental stages, creating a model of normative development in order to make predictions and recommendations about how children learn (Sutton-Smith, 1997).

Greatly influenced by his work, child development research since has stressed the functions of play in supporting cognitive development. An influential developmental approach to the power of play has been articulated in the work of cultural psychologist Lev Vygotsky. Rather than advocating play as a desirable ‘vehicle’ for learning like Piaget, Vygotsky saw play as stimulating a socio-cultural learning process in and of itself, in which the child is at the forefront of their cognitive development:

> “In play a child is always above his average age, above his daily behaviour; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form; in play it is as though the child were trying to jump above the level of his normal behaviour.”
>
> (Vygotsky, 1978, p. 16)

Whereas Piaget argued that normal development unfolded universally in sequential stages, Vygotsky saw development as a continuous process, and placed greater emphasis on the importance of social interaction.

Vygotsky’s play theories highlight the particular importance of play in development of symbolic representation (including language). Using the example of a child playing with a stick that becomes a horse, Vygotsky (1967) highlights the power of play to enable everyday objects to stand for something else. He argued that play (particularly play with objects and pretence) is part of developing the capability for abstract thought, and as such is central to creativity, imagination and problem-solving. In contrast to more structured or regulated forms of playing, free play is seen as providing children with greater opportunities to use their imagination, be creative and experiment (Pellegrini & Smith, 2005).

Reviewing research on child development, Whitebread et al. (2017) identify a universality to play, with similar play types being noted across cultures (Whitebread, 2012) and a tendency for children to play even in cultures and contexts where it may not be actively nurtured. They link certain types of play and particular outcomes, such as physically active play improving motor development, block play improving spatial processing, word-play relating to language development, and board games leading to improvements in numeracy.

More generally, developmental studies have claimed associations between play and children’s flexibility of thought (Bruner, 1972), divergent thinking (Russ, 2003), emotional wellbeing (Bornstein, 2006) and self-regulation (Whitebread, 2010). From such perspectives, play stimulates:

> “An opportunity for children to learn more about their world, to stretch and accommodate new ideas, and to foster their imaginations.”
>
> (Golinkoff et al., 2006, p. 8)

Or as Brodin et al. (2018, p. 2) suggest, “play is the rocket fuel of child development.”

Increasingly, research from neuroscience is supporting arguments for the value of play in brain development. The importance of play and playful interactions with others is emphasized particularly in early childhood when the overwhelming majority of the brain's neural networks are formed (Carter & Frith, 2010).

It has been argued that play's characteristics are beneficial for children's brains in a number of ways. For instance, Liu et al. (2017) suggest that increased dopamine levels associated with joyful play support memory, attention, creativity and motivation, and that the meaningful nature of play, making connections between familiar and unfamiliar stimuli, can make effortful learning easier. Conversely, studies suggest that deprivation of play opportunities results in negative consequences for brain development (Frost, 1998; Pellis & Pellis, 2011).

While building on earlier ideas about play and learning, work in child development has had an important role in promoting play's significance, and shaping the terms on which play is valued:

> "Play, the frivolous, unimportant behavior with no apparent purpose has earned new respect as biologists, neuroscientists, psychologists, and others see that play is indeed serious business and is perhaps equally important as other basic drives of sleep, rest, and food."

(Frost, 1998, p. 1)

Play as a valuable means of learning

While developmental accounts of play stretch back a century or more, linked to the emergence of the disciplines first of biology and then psychology, the association between play and learning has an even longer history. In Ancient Greece, the philosopher Plato urged:

> "Don't use force in training the children in the subjects, but rather play."

(Plato, cited in Karpatschof, 2013, p. 253)

Plato suggests a connection between play in childhood and development into adulthood, arguing that the creation of an ideal civilized society should involve the governors being educated differently from the workers, with the teacher directing play toward the child's destined role in life. For instance, "He who is to be a good builder, should play at building houses … and those who have the care of their education, should provide them when young with mimic tools" (Plato, 2008, p. 26). In this way, Plato positions play as a form of anticipatory socialization, through education, to serve the needs of a state in developing good citizens.

Although remarkable in his time for advocating the place of play in education, and suggesting that it is natural for young children to play, Plato also argues that play can be irrational and morally challenging, suggesting it needs controlling and directing by a teacher. He expresses particular concern that as children become older their play should be increasingly regulated and contained, believing that habits such as changing rules in play might result in changing institutions and laws in adulthood:

> "No society has ever really noticed how important play is for social stability. My proposal is that one should regulate children's play. Let them always play the same games, with the same rules and under the same conditions, and have fun

> playing with the same toys. That way you'll find that adult behaviour and society itself will be stable."

(Plato, cited in D'Angour, 2013, p. 300)

Classical play theories linking play and learning were revisited in the European Renaissance. Enlightenment philosopher John Locke saw value in play as an alternative to force as a means of ensuring learning:

> "I have always had a fancy, that Learning might be made a Play and Recreation to children; and they might be brought to desire to be taught."

(Locke, 1693/2017, p. 148)

Romantic philosophers such as Jean-Jacques Rousseau positioned play as part of children's natural and innate curiosity, a right and a means of liberation, with the adult's role to foster and value it (Rousseau, 1762/1979). Rousseau advocated the importance of beginning education early, and reacted against the harsh child-rearing practices of his day, instead advocating active, playful activities:

> "We must never forget that all this should be play, the easy and voluntary control of the movements which nature demands of them, the art of varying their games to make them pleasanter, without the least bit of constraint to transform them into work; for what games do they play in which I cannot find material for instruction for them?"

(Rousseau, cited in Frost, 2010, pp. 23–24)

Proponents of early childhood education such as Johan Pestalozzi and Friedrich Froebel took inspiration from these ideas, implementing them in their own educational centres. Seen as the founder of the kindergarten system and the first to use the term 'playground', Froebel is credited with taking children's play seriously and placing it at the very centre of education for the first time. Froebel writes:

> "Play is the highest achievement of child development … it is the spontaneous expression, according to necessity of its own nature, of the child's inner being … Play at this period of life is not a trivial pursuit; it is a serious occupation and has deep significance."

(Froebel, cited in Smith, 2010, p. 23)

Although Froebel held play in high importance, his kindergartens were not places where play went entirely unregulated. He viewed play as exemplifying natural child development, but believed this should be nurtured by adult guidance and through provision of appropriate materials and activities. Even in free play, Froebel's approach placed emphasis on careful planning, designing play materials such as blocks, balls and cylinders for supporting discovery. In this sense, free play was still carefully planned and shaped by the adult.

These early theories highlight society's longstanding interest in play and its association with learning. Play has often been positioned as a way of shaping future citizens, aligned with and harnessing what are often seen as children's natural, playful ways of being in the world. They also highlight the role of adults – as educators and facilitators - in shaping and guiding children's play towards particular educational objectives.

Play and pedagogy

Theories about play's close relationship with learning and development have shaped pedagogy, the theory and practice of teaching. This has particularly been the case in early childhood education, where research suggests that children learn better, and can perform tasks at a higher level in play than in non-playful contexts (Manuilenko, 1975).

For example, Sylva, Bruner and Genova (1976) carried out experimental research comparing problem-solving between children aged 3-5 who had been 'taught' how to use objects in particular ways and children who were given time to play with the same objects. Similar numbers of children in the two conditions were successful in solving the problem, but the children who had had the play experience persevered longer, were more inventive, and generally came closer to finding a solution.

The 'Effective Provision of Pre-school Education (EPPE) Project' (Sylva et al., 2004) carried out a large study of UK early childhood education settings over several years, finding that extended play-based preschool provision had lasting effects on children's academic and social development. They found a particular benefit for children from disadvantaged backgrounds, this subsequently driving much recent UK early childhood education policy.

It is argued that in play, children are "learning how to learn" (Whitebread, 2015, p. 10). Consequently, attention has focused on the role of the adult in 'scaffolding' children's play so that it is aligned with intended learning objectives (Wood et al., 1976). Building on the idea of a spectrum of play, with a child's free play at one end, direct adult instruction at the other (e.g. Zosh et al., 2017), this has given rise to a number of concepts such as 'guided play' (Zosh et al., 2017), 'educational play' (Sylva et al., 2004), 'playful learning' (Hirsh-Pasek, 2009) and 'a pedagogy of play' (Project Zero, 2016).

Although it appears that adult involvement in play can help maximize possibilities and opportunities for learning, the boundary between free play and adult-led play, and the role of the adult in play, are complex and often debated (Whitebread, 2012). For instance, a study of children aged 4-5 in a London school found children were significantly more likely to demonstrate self-regulation and metacognition in child-initiated activity than adult-initiated activity (Robson, 2016). Indeed, children may not view adult-led play as play at all (Wing, 1995).

While few would argue against making teaching and learning as enjoyable and engaging as possible, some warn against the 'pedagogisation' of children's play (Rogers, 2013), seeing it as hijacking play's intrinsic qualities, prioritising adult-led play rather than free play, and overlooking the significance of play to children themselves (Rogers & Lapping, 2012).

To take the case of England's Early Years Foundation Stage curriculum for children aged 0-5, this calls for both adult-led and free play, stating that "children learn by leading their own play, and by taking part in play which is guided by adults" – the role of adults in the latter case is to provide "planned, purposeful play" and to observe this play as part of assessment (Department for Education, 2017, p. 9). Anning (2010) notes that such statements appear to give “official permission to play” where otherwise play might be dismissed or overlooked. However, some fear that the emphasis on ‘planned, purposeful play’ implies that without a pedagogical framing, play would be purposeless (Wood, 2010). Indeed, the curriculum guidance states that educators should gradually shift the balance from child-led play to adult-led activities “to help children prepare for more formal learning” (Department for Education, 2017, p. 9).

In practice, Moyles and Worthington (2011) found that free play is less often present and valued in early years classrooms than other forms of play. Beyond the early years, teacher-led learning is predominant. For example, mentions of play and play-based learning are absent altogether from England’s Primary National Curriculum for children aged 5-11, apart from in relation to playing sports and musical instruments (Department for Education, 2014). In schooling beyond the early years, play is likely to be authorised only in physically and temporally separate spaces to those established for ‘learning’, such as in playgrounds at specified break times (Frost, 2010; Smith, 2010).

Moreover, school playtimes are themselves increasingly under threat. In their survey of primary and secondary schools in England, Baines and Blatchford (2019) found a marked decline in the length of break times since their earlier survey in 1995, having reduced by an average of 45 minutes per week for the youngest children in school and by 65 minutes per week for students in secondary school. The main reasons given by schools for the reduction in break times was to create more time for teaching and learning, specifically to cover the curriculum, and to manage or limit perceived poor behaviour of students that staff said occurred during those times.

Due to free play’s seemingly chaotic appearance, it has been argued that adults can lose patience with its value:

> “It can seem pointless because it is not linked to school work. It can seem frightening and risky because it is not supervised by contracted adults. It can seem anti-social because it is noisy and unpredictable.”
>
> (Thomas & Hocking, 2003, p. 54)

This tension between free play ideology and practice has been attributed to an increasing emphasis on attainment targets, testing and an agenda of ‘school-readiness’ for young children, squeezing out opportunities for free play (Lansdown & Lancaster, 2001; Whitebread, 2012).

This debate can be particularly intense in relation to certain groups of children. For instance, Jahr et al. (2000) argue that children with autism might benefit from being taught to initiate and sustain cooperative play. However, other researchers have questioned whether ‘teaching’ children with autism to play is actually considered play by the children (Jordan, 2003). It has been argued that adult intervention programmes reduces or impoverishes children’s play with each other (Nind et al., 2014), risking pathologizing these children’s play as intrinsically deficient (Goodley & Runswick-Cole, 2010).

Relatedly, it has been found that disabled children are more likely to be offered adult-controlled activities as an alternative to play than non-disabled children (John & Wheway, 2004). On the one hand, such organised play may contribute in valuable ways to therapy, treatment or education. But on the other, John and Wheway argue that “play is a positive end in itself" (p. 13) and that all children should have opportunities for free play. Or as Goodley and Runswick-Cole (2010) argue, play should be valued for its emancipatory power rather than 'colonised' by adults who are often overly-focused on its instrumental value.

Play as therapeutic

Play has not only been linked with teaching and learning, but has also been strongly associated with mental wellbeing. Psychoanalyst Sigmund Freud regarded play as an avenue for wish fulfilment and mastery, providing a safe context for expressing anxieties and impulses with reduced risk of danger or consequences:

> "We see that children in their play repeated everything that has made a great impression on them in actual life, so that they thereby abreact the strength of the impression and so to speak make themselves masters of the situation."
>
> (Freud, cited in Herron & Sutton-Smith, 1971, p. 107)

From this perspective, play is seen as an important way in which children express and cope with emotions at a distance, particularly those resulting from difficult experiences, lessening their impact and mitigating their effect. Psychologist Bruno Bettelheim argued that "through playing out feelings, children master emotions that would otherwise overwhelm them" (1972, p. 1), seeing play as a means of bridging internal fantasy worlds and external reality.

Educational psychologist and psychoanalyst Susan Isaacs made free play central to her pioneering educational approach with young children, describing play as:

> "The breath of life to the child, since it is through play activities that he finds mental ease, and can work upon his wishes, fears and fantasies so as to integrate them into a living personality."
>
> (Isaacs, 1951, p. 210)

Isaacs saw particular power in play on children's own terms, arguing that "play has the greatest value for the young child when it is really free and his own" (1971, p. 133). Relatedly, paediatrician and psychoanalyst Donald Winnicott argued that 'playing is itself a therapy' (1971/2009) while psychologist Erik Erikson suggested that:

> "Solitary play is an indispensable harbour for the overhauling of shattered emotions after periods of rough going in the social seas."
>
> (Erikson, 1950, p. 194)

Such perspectives emphasise the cathartic nature of free play and argue for play's role in establishing emotional balance and fostering resilience to stressful life events. Several studies have shown that play has an important role in supporting socio-emotional regulation and reducing stress (Zosh et al., 2017). Spontaneous free play in particular, through its characteristics of uncertainty, unpredictability, novelty and non-productivity, has been found to foster children's adaptability, flexibility, resilience and balance (Hewes, 2014).

Play is seen as having particular therapeutic importance for children who have experienced trauma, such as natural disasters and war (Frost, 2005). For instance, Raymond and Raymond (2000) and El Gemayel (2019) found that children who had experienced conflict and displacement referenced experiences such as shootings and bombings in their play. In his study of children's play in Jewish communities during the holocaust, Eisen (1990) noted children continued to play, suggesting play can bring an element of sanity in the midst of catastrophe.

More recently, Egan et al. (2020) surveyed parents about children's free play during the COVID-19 lockdown, finding examples of children's free play referencing the pandemic in various ways, such as washing dolls' hands and building LEGO hospitals with ventilators. It is suggested that through play children are able to express emotions relating to difficult situations they have no control over, with a degree of control being gained through the play itself (Santer et al., 2007).

In addition to understanding the therapeutic qualities of spontaneous free play, the role of play in more structured therapy has also been explored. In psychoanalytic approaches, play and play materials substitute Freud's verbal free association approach commonly used with adults (Klein, 1955). Play is considered particularly important for children as it supports expression of thoughts and concerns beyond what can be communicated in language (Frost, 2005).

The work of child psychologists and play therapists such as Virginia Axline and Margaret Lowenfeld detail how 'nondirective play therapy' can help provide therapeutic conditions for children to play freely, thereby resolving their own problems and working towards their own solutions (Lowenfeld, 1935/1991; Axline, 1947/1990). Others have argued for 'directive play therapy', where the therapist takes a more active and interventionist role (Phillips, 1985). Models such as 'Theraplay' have considered how such therapeutic approaches might be adapted for parents to use with their children.

Play therapy is often used in specific contexts, for instance in the case of hospitalized children (Patte, 2010) and for children coping with the aftermath of natural disasters (Fearn & Howard, 2012). Play is also often used as a mechanism for assessment, diagnosis and therapeutic intervention with children, particularly in the case of disability or atypical development. In these instances, therapeutic play may be used to encourage children to work towards particular developmental targets.

Work in the field of play therapy points to a strong association between play and wellbeing, helping to minimise stress, manage trauma, develop mastery and support happiness. The role of the adult in play is the subject of debate. Some see free play as intrinsically therapeutic, or as a way for children to communicate their feelings, while others use play therapy as an intervention for supporting children to work through particular issues. As with the case of play and learning, there are on-going questions surrounding what free play means to children themselves and whether adults should harness play's features to meet particular ends.

Play and wellbeing

Psychologist Mihaly Csikszentmihalyi proposes that humans are happiest when they are in a state of 'flow', demonstrating a sense of absorption and complete involvement with the activity at hand:

> "Flow is being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz."
>
> (Csikszentmihalyi, 1996, p. 1)

It is noted that for children, flow is most likely to occur in free play, happening when activities are done for their own sake, balancing challenge and skill level, leading to high levels of motivation (Nakamura & Csikszentmihalyi, 2009). Play is defined as "action generating action: a unified experience flowing from one moment to the next" (Csikszentmihalyi & Bennett, 1971, p. 45). From such a perspective, play can support mental health and happiness, with play theorist Sutton-Smith (1997) arguing that the opposite of play is not work, but depression.

Indeed, play has been valued for its contribution to children's wellbeing, stimulating a range of social and health interventions. For instance, at the start of the 20th Century educator Margaret McMillan pioneered outdoor play-based nursery education for children in some of London's most deprived areas as a means of improving their health (1919). Play therefore has a history of being interwoven with social initiatives.

Reviews have highlighted the wider impact of play in terms of benefits to health, child development, families and communities (Gill, 2014). These in turn inform policies such as the Play Strategy for Scotland, which sets out the Scottish Government's vision and commitment for play opportunities:

> "Play is not just crucial to the wellbeing of each child, it is essential to the social, economic and environmental wellbeing of Scotland as a whole."
>
> (Scottish Government, 2013, p. 5)

However, the UK nations' approaches to play policy vary, with England's ambitious ten-year Play Strategy (Play England, 2008) having been abandoned following changes in government. This indicates ongoing challenges relating to the status and perceived importance of play among policymakers.

Many emotive arguments are made about the decline of play opportunities and the need to resurrect free play in children's lives (Burdette & Whitaker, 2005). For instance, Frost (2010) talks about a crisis of 'play deprivation' in modern childhood, with Gray (2011) making associations between declining play and increased anxiety and depression among children. Play advocates such as Frost (2010) argue that a 'child-saving movement' is urgently needed with others calling for 'free-range' childhoods (Moss, 2012).

Outdoor play has received particular attention in response to concerns that children's time spent outdoors, especially in nature, is decreasing (Lester & Maudsley, 2007). Children are often seen as having an affinity with the natural world, drawing on ideas from philosophers such as Rousseau and Romantic poets closely associating childhood and nature. There have been suggestions that children today are experiencing “nature deficit” due to factors including parental fears, restricted access to natural areas and the popularity of electronic devices (Louv, 2010). A more nuanced argument is made by Gill (2011), who suggests that contact with nature should be part of a ‘balanced diet’ of childhood experiences.

One argument for supporting children’s outdoor play in nature is related to developing positive environmental attitudes and values. There is evidence of a link between time spent in natural settings as a child and positive views about nature as an adult (Gill, 2011). The suggestion is that through spending time playing in nature locally, children develop a broader environmental awareness and desire to protect natural spaces, potentially fostering more environmentally conscious citizens in adulthood (Hart, 1997; Wells & Lekies, 2006). This has resulted in local ‘wild play’ initiatives that support children’s free play in natural environments (for example, New Forest National Park, 2018).

Widespread concerns about sedentary lifestyles and childhood obesity in Western industrialised nations have led to support for children engaging in more active physical play. This has led to the promotion of play in public health information such as the NHS physical activity guidelines for children, mentioning play activities such as chasing games, ball games, skipping and skateboarding (NHS, 2020). This debate has also drawn attention to factors limiting children’s opportunities for physically active play, including a general decline in time and space for children to engage in play, especially free play (Frohlich et al., 2013).

Concerns about children’s physical health have driven a number of interventions, such as developing play spaces specifically designed to promote physical activity (Farley et al., 2007). Play has therefore become increasingly “revered and idealized by health institutions” as a means of addressing a public health crisis (Frohlich et al., 2013, p. 7). However, it has been argued that focusing narrowly on benefits for children’s fitness downplays important social and emotional aspects of play (Alexander et al., 2014). The suggestion is that mainly viewing “play as a health prescription” may destroy play’s inherent pleasure, freedom, spontaneity and fun (Frohlich et al., 2013).

As may be seen play is often drawn into wider debates surrounding children’s wellbeing, including their mental and physical health, and their environmental citizenship. In these debates, play is often seen as part of a solution to wider social problems, adding weight to arguments about the value of play in children’s lives – even though play alone is unlikely to be a simple solution for complex social issues.

Play as a right

Play's importance in children's lives has been acknowledged in the United Nations Convention on the Rights of the Child. Article 31 asserts the right of all children "to rest and leisure, to engage in play and recreational activities", calling on member states to respect, protect and fulfil this right (UN General Assembly, 1989). The UN General Comment on Article 31 stresses play's significance for children by drawing on many of the arguments and perspectives discussed in this review:

> "Play and recreation are important to children's health and wellbeing. They promote the development of creativity, imagination, self-confidence, self-efficacy and physical, cognitive and emotional strength and skills. They are also a form of participation in everyday life, and are of intrinsic value to the child, purely in terms of the enjoyment and pleasure they afford."
>
> (United Nations, 2013, p. 2).

Article 31 recognises the connections among play, recreation, rest and leisure but also distinguishes them. Play specifically is viewed as being non-compulsory, driven by intrinsic motivation and undertaken for its own sake, with characteristics including fun, uncertainty, challenge, flexibility and non-productivity (United Nations, 2013). It has been argued that the right to play essentially reflects the child's right to be a child (Van Gils, 2007) and that without opportunities for play, children's health, wellbeing and development is likely to be impaired (Lester & Russell, 2010).

Despite the status of play as a right of every child, and its recognised centrality to childhood, it has been described by Hughes (1990) as "the forgotten right", suggesting that play is often considered optionally, only when other rights have been addressed. Many restrictions on play have been identified worldwide, including a lack of recognition of play's importance among adults, unsafe environments, resistance to children's use of public spaces and pressure for educational achievement (United Nations, 2013).

In the UK, particular barriers to children's outdoor free play include traffic, parental anxieties and negative opinions about children's street play (Lacey, 2007), in addition to school pressures, highly scheduled free time and negative attitudes to risk (Gill, 2007). Children responding to The Children's Commission on Poverty highlighted the problem of limited spaces to play (Pople et al., 2013), and children have expressed concerns about the danger posed by traffic when playing outdoors in public spaces (Matthews & Limb, 2000).

The right of children to play in public spaces appears to be a particularly contentious issue. It has been argued that adult views on children's play in public spaces tend to see the child as vulnerable and in need of protection, or as a nuisance indulging in anti-social behaviour (Matthews & Limb, 2000). This in turn draws on historical tropes that tend to position children as either innately innocent or wicked (Smith, 2010). Negative adult attitudes seem to emerge particularly in relation to older children and teenagers spending time in public spaces (Thomas & Hocking, 2003). However, older children have said they want opportunities to socialise in safe public environments without being judged or pushed towards structured youth provision (11 Million, 2008). This suggests that for older children and teenagers especially, their right to free play in public spaces may be constrained by factors such as negative adult attitudes, lack of spaces for play (and playful activities) and limited time for play.

Several inequalities have been identified internationally in relation to children's right to play. For instance, it is recognised that girls often have less time and freedom than boys to enjoy their right to play, especially in adolescence, due to domestic responsibilities and cultural assumptions about the behaviour of girls (United Nations, 2013). Minority ethnic children, especially girls, have been found to have less freedom to move around their neighbourhood and use urban spaces (O'Brien et al., 2000). It is also recognised that children living in poverty, children with disabilities, children in institutions such as hospitals and children in situations of conflict need particular attention to ensure their right to play is recognised and upheld (United Nations, 2013).

Within a rights-based perspective, the role of the state is to respect, protect and fulfil children's right to play. From such a perspective, children's right to play becomes an important issue of spatial justice, calling for fair and equitable design and opportunities for use of space. A rights-based perspective is currently driving several campaigns relating to play. For instance, organisations such as *Playing Out* call for protected times in which UK streets can be closed to traffic to enable opportunities for safe outdoor play (Playing Out, 2019), and international initiatives such as UNICEF's *Child Friendly Cities* (2018) call for formal consideration of children's right to play when planning urban environments, recognising the marginalisation of children in planning processes (Woolley et al., 1999).

Where time and space for play is recognised and provided for, it has been noted that this is often in the provision of activities structured and organised by adults (United Nations, 2013). However, it is argued that:

> "Equally important is the need to create time and space for children to engage in spontaneous play."
>
> (United Nations, 2013, p. 1)

This reflects a need to recognise the intrinsic value of free play to children themselves in the here-and-now, including the fact that play that may sometimes look purposeless or be challenging to adults (Lester & Russell, 2010). A rights-based perspective on play therefore highlights free play as central to children's experience of the world and their enjoyment of life. It calls on society to respect, protect and fulfil this right through creating and protecting space and time for play, consulting children on their play experiences and needs, and overcoming inequalities in children's enjoyment of their right to play.

The qualities of free play and why they matter

In order to recognise and value free play, and to distinguish it from other forms of play, this review concludes by drawing out the qualities of free play, informed by the literature discussed throughout the review, and recognising children's perspectives on what play means to them. It is proposed that these are prototypical qualities of free play, without claiming them to be exhaustive, absolute or universal. It is recognised that each of these qualities affords possibilities of play which adults may regard as transgressive or risky, and that negotiating established norms and constraints is an important dimension of children's free play.

Sociologists and historians of childhood observe that children are often seen as either human 'beings' or human 'becomings' (Uprichard, 2008). The 'being' child is seen as a social actor in their own right who is actively constructing their own childhood. The 'becoming' child is seen as an adult-in-the-making, who is lacking skills and features of the adult they will become. It has been argued that to focus overly on children as 'becomings' positions children as incompetent and dismisses the complex everyday realities of being a child (James & Prout, 1997). But as the review has revealed, play is often viewed as valuable in terms of its longer-term functions or future payoffs, viewing children mainly as 'becomings' (Herron & Sutton-Smith, 1971). In other words, where play is recognised and valued, it is often adult-directed play, or free play 'put to use' by adults in various ways, for instance in early childhood education, play therapy or tied to particular social initiatives. This stems from well-meaning adult intentions relating to longer-term aims and outcomes for children, and seeing playful experiences as more natural or enjoyable for children than formal direction. But concerns remain that play should not *only* be seen as a means to other ends because this can downplay the value of play to children in the here-and-now.

Moreover, it is important to remember that children themselves may not see these activities as play. As the review has also shown, children have their own views on what free play is and why it matters to them in the here and now. Those who call attention to the importance of free play, notwithstanding the challenges it may pose, highlight that play, first and foremost, belongs to children and that adults therefore have a responsibility to "tread lightly" on it (Lester & Russell, 2010, p. 46). Wood (2010) argues that accounts of play should focus on what play *means* for children as well as what play *does* for children. The adventure playground movement illustrates one way in which adults may be part of making sure children have space, time and permission for free play. Such spaces include opportunities for independence, risk and challenge with supportive adults present nearby if needed. Such approaches illustrate one way of striking a balance between society's duty of care while maintaining the important qualities of free play, including both its immediate and long-term benefits.

Are there ways in which society might value and support children's free play without strongly imposing an adult agenda? Is it possible to consider children as both beings *and* becomings, inviting a focus on both the immediate and longer-term significance of play in children's lives? This is certainly a challenging and ongoing debate (Whitebread, 2012). Play may contest and resist norms, rules and restrictions. It can be both creative and destructive, exploring power and control, and testing individual and social limits. Free play is likely to involve risk-taking, as players seek out new experiences and challenges in a playful context that offers a degree of distance and control (Sandseter et al., 2020). Play may also sometimes be cruel, marginalising and unsafe. These aspects of play may typically be troubling to adults, and also sometimes to children themselves. They challenge some of the traditional and dearly-held ideas surrounding play (Grieshaber & McArdle, 2010).

One way to think of play is to simultaneously acknowledge both the benefits experienced by children at the time that they are playing (such as freedom, choice, control, agency, exploring risk and having new experiences) and benefits that develop over time (such as healthy growth and development, wellbeing, learning and creativity). Initiatives such as the UK's adventure playgrounds provide food for thought in developing an ethos that simultaneously recognises both intertwined sets of benefits, and considers the role of the adult in supporting, protecting and enabling children's free play.

Undoubtedly, there will continue to be questions about the extent to which adults should supervise, monitor or intervene in children's free play. This is likely to be an ongoing balance between children's right to free play that involves challenge, risk and independence, and the adult's duty to support safe and inclusive play that protects children from serious harm. As regards the purposes of this review, and as stated at the outset, the aim here is to highlight important qualities of free play on children's terms so that these can be put at the top of an agenda for providing and nurturing play, including play in a digital world. The qualities of free play synthesised from the review are shown below, by way of conclusion.

Qualities of free play

Intrinsically motivated
A hallmark of free play is that it is intrinsically motivated, meaning that the play happens for its own sake rather than to serve other purposes, especially instrumental ones. Because it is intrinsically satisfying, it is sustained by the interest of the player(s) themselves.

Voluntary
Free play is initiated by the player(s), entered into willingly and cannot be imposed or insisted upon. It has a spontaneous quality and cannot be totally planned for, though others may inspire or invite it. It is self-chosen, self-directed, and includes the freedom to quit.

Open-ended structure
Players not only choose to play, they also choose what and how to play, with choices generally made in-the-moment as play unfolds. Although free from external rules, free play can be orderly, even rule-governed, with the players developing an internal structure negotiated and open to adaptation through the play itself.

Imaginative
Free play escapes the immediate ‘here and now.’ As an experience it marks a separation from day-to-day life, often achieved through all-absorbing make-believe and imagined realities. This includes the inventive use of the material, spatial and embodied resources to hand, transforming meanings through creative interpretation and improvisation.

Stimulating
Distinct from the imaginative quality of play, though often going hand in hand with imagination, we here capture the idea that children seek and engage with activities they find stimulating, absorbing, and facilitating of new ideas and new possibilities.

Social
Whether free play involves others or happens alone, it unfolds within a sociocultural context, and requires others to sustain the play (even if those others may be imagined rather than present). This means it attends to, and may need to meet the desires and needs of others as well as one’s own if the play is to continue.

Emotional resonance
Free play is often associated with pleasure and joy. However, it can feature a wide range of emotions and can deal with serious themes. It can be emotionally ‘affective’ or satisfying to children in multiple ways, resonating with their inner lives and helping them to make sense of the world.

Diversity of forms
Free play encompasses the activities of children across ages, cultures and circumstances. Cultural values of childhood shape the time, spaces and resources available for free play, so it takes diverse forms according to contexts.

References

11 Million. (2008). *Fun and Freedom: What children say about play in a sample of play strategy consultations*. Play England.

Adams, J. (2002). *Risk*. Routledge.

Alexander, S. A., Frohlich, K. L., & Fusco, C. (2014). Playing for health? Revisiting health promotion to examine the emerging public health position on children's play. *Health Promotion International*, *29*(1), 155–164.

Anning, A. (2010). Play and Legislated Curriculum. In J. Moyles (Ed.), *The Excellence of Play* (pp. 19–33). Open University Press.

Axline, V. M. (1990). *Play Therapy*. Ballantine Books.

Baines, E., & Blatchford, P. (2019). *School break and lunch times and young people's social lives: A follow-up national study. Executive Summary.* UCL Institute of Education / The Nuffield Foundation.

Ball, D., Gill, T., & Spiegal, B. (2012). *Managing Risk in Play Provision*. National Children's Bureau.

Barnett, L. A. (2007). The nature of playfulness in young adults. *Personality and Individual Differences*, *43*(4), 949–958.

Bateman, A., Danby, S., & Howard, J. (2013). Living in a broken world: How young children's well-being is supported through playing out their earthquake experiences. *International Journal of Play*, *2*(3), 202–219.

Bayley, R., & Featherstone, S. (2013). *Supporting child-initiated learning* (New edition). Featherstone.

Bettelheim, B. (1972). Play and Education. *The School Review,* 81(1) pp. 1-13.

Bornstein, M. H. (2006). On the Significance of Social Relationships in the Development of Children's Earliest Symbolic Play: An Ecological Perspective. In A. Göncü & S. Gaskins (Eds.), *The Jean Piaget symposium series. Play and development: Evolutionary, sociocultural, and functional perspectives* (pp. 101–129). Lawrence Erlbaum Associates Publishers.

Brandow-Faller, M. (Ed.). (2018). *Childhood by design: Toys and the material culture of childhood, 1700-present*. Bloomsbury Visual Arts.

Brodin, J., Kruythoff, K., Goodwin, J., & Knell, G. (2018). *Value of Play Report*. The Real Play Coalition. https://www.realplaycoalition.com/wp-content/uploads/2018/11/The-Real-Play-Coalition_Value-of-Play-Report.pdf

Bruner, J. S. (1972). Nature and uses of immaturity. *American Psychologist*, *27*(8), 687–708.

Burdette, H. L., & Whitaker, R. C. (2005). Resurrecting Free Play in Young Children: Looking Beyond Fitness and Fatness to Attention, Affiliation, and Affect. *Archives of Pediatrics & Adolescent Medicine*, *159*(1), 46.

Burghardt, G. M. (2006). *The genesis of animal play: Testing the limits* (1. MIT Press paperback ed). MIT Press.

Burn, A. (2011). *Children's Playground Games and Songs in the New Media Age—End of Project Report*.

Burns, V., & Irvine, C. (2011). *'I'd Play All Day and Night if I Could'—A Report on Children's Views on their Right to Play*. The Children's Parliament, on behalf of The International Play Association (Scotland).

Caillois, R. (2001). *Man, play, and games* (M. Barash, Trans.). University of Illinois Press.

Carter, R., & Frith, C. D. (2010). *Mapping the mind*. Phoenix.

Casby, M. W. (2003). The Development of Play in Infants, Toddlers, and Young Children. *Communication Disorders Quarterly*, *24*(4), 163–174.

Casey, T., & Robertson, J. (2019). *Loose Parts Play*. Inspiring Scotland.

Child Accident Prevention Trust. (2002). *Taking Chances: The lifestyles and leisure risk of young people*. Child Accident Prevention Trust.

Cohen, D. (2006). *The development of play* (3rd ed). Routledge.

Coster, D., & Gleave, J. (2008). *Give us a go! Children and young people's views on play and risk-taking*. Play Day / Play England. https://www.playday.org.uk/wp-content/uploads/2015/11/give_us_a_go___children_and_young_peoples_views_on_play_and_risk_taking.pdf

Csikszentmihalyi, M. (1996). Go With The Flow. *Wired*. https://www.wired.com/1996/09/czik/

Csikszentmihalyi, M., & Bennett, S. (1971). An Exploratory Model of Play. *American Anthropologist*, *73*(1), 45–58.

Cunningham, H. (2006). *The Invention of Childhood*. BBC Books.

D'Angour, A. (2013). Plato and Play: Taking Education Seriously in Ancient Greece. *American Journal of Play*, *5*(3), 293–307.

Danks, F., & Schofield, J. (2006). *Nature's Playground*. Frances Lincoln.

DeMause, L. (2006). *The History of Childhood*. Jason Aronson.

Department for Education. (2014). *The National Curriculum in England: Framework Document*. Department for Education.

Department for Education. (2017). *Statutory Framework for the Early Years Foundation Stage: Setting the standards for learning, development and care for children from birth to five*. Department for Education.

Edstrom, L. (2003). 'Building Up': Block Play After September 11. *Bank Street Occasional Paper Series*, *11*(5), 18–21.

Edwards, C. (2000). Children's Play in Cross-Cultural Perspective: A New Look at the Six Cultures Study. *Cross-Cultural Research*, *34*.

Egan, S. M., Beatty, C., & Hoyne, C. (2020). *PLEY COVID-19 Key Finding Series—Play*. Mary Immaculate College.

Einarsdóttir, J. (2014). Children's Perspectives on Play. In L. Brooker, M. Blaise, & S. Edwards (Eds.), *SAGE Handbook of Play and Learning in Early Childhood* (pp. 319–329). SAGE Publications.

Eisen, G. (1990). *Children and play in the Holocaust: Games among the shadows*. University of Massachusetts Press. http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=13981

El Gemayel, S. (2019). *The effect of war and displacement on the play of young Iraqi and Syrian refugees* [PhD].

Erikson, E. (1950). *Childhood and Society*. WW Norton.

ESRC. (2000). *The Dangers of Safe Play: Children 5–16* (Research Briefing No. 22). Economic and Social Research Council.

Farley, T. A., Meriwether, R. A., Baker, E. T., Watkins, L. T., Johnson, C. C., & Webber, L. S. (2007). Safe Play Spaces To Promote Physical Activity in Inner-City Children: Results from a Pilot Study of an Environmental Intervention. *American Journal of Public Health*, *97*(9), 1625–1631.

Fearn, M., & Howard, J. (2012). Play as a Resource for Children Facing Adversity: An Exploration of Indicative Case Studies: Play as a Resource for Children Facing Adversity. *Children & Society*, *26*(6), 456–468.

Fox, S. J. (1977). A paleoanthropological approach to recreation and sporting behaviors. In B. A. Tindall & P. Stevens (Eds.), *Studies in the Anthropology of Play*. Leisure Press.

Frohlich, K. L., Alexander, S. A. C., & Fusco, C. (2013). All work and no play? The nascent discourse on play in health research. *Social Theory & Health*, *11*(1), 1–18.

Frost, J. L. (1998). *Neuroscience, Play and Child Development*. IPA/USA Triennial National Conference, Longmont, CO.

Frost, J. L. (2005). Lessons from Disasters: Play, Work, and the Creative Arts. *Childhood Education*, *82*(1), 2–8.

Frost, J. L. (2010). *A history of children's play and play environments: Toward a contemporary child-saving movement*. Routledge.

Frost, J. L. (2012). The changing culture of play. *International Journal of Play*, *1*(2), 117–130.

Garvey, C. (1977). *Play*. Open Books.

Gaskins, S., Haight, W., & Lancy, D. F. (2007). The Cultural Construction of Play. In A. Göncü & S. Gaskins (Eds.), *Play and Development: Evolutionary, Sociocultural, and Functional Perspectives* (pp. 179–202). Erlbaum.

Gaskins, S., & Miller, P. J. (2009). The Cultural Roles of Emotions in Pretend Play. In C. Dell Clark (Ed.), *Transactions at Play: Play and Cultural Studies* (pp. 5–21). University Press of Africa.

Gaunt, K. D. (2006). *The games black girls play: Learning the ropes from Double-dutch to Hip-hop*. New York University Press.

Gill, T. (2007). *No fear: Growing up in a risk averse society*. Calouste Gulbenkian Foundation : Distributed by Central Books.

Gill, T. (2011). *Sowing the Seeds: Reconnecting London's Children with Nature*. Greater London Authority.

Gill, T. (2014). *The Play Return*. Children's Play Policy Forum.

Golinkoff, R. M., Hirsh-Pasek, K., & Singer, D. (2006). Play = Learning: A challenge for parents and educators. In D. Singer, R. M. Golinkoff, & K. Hirsh-Pasek (Eds.), *Play = Learning: How Play Motivates and Enhances Children's Cognitive and Socio-Emotional Growth* (pp. 1–22). Oxford University Press.

Goodley, D., & Runswick-Cole, K. (2010). Emancipating play: Dis/abled children, development and deconstruction. *Disability & Society*, *25*(4), 499–512.

Goodwin, M. H. (2006). *The hidden life of girls: Games of stance, status, and exclusion*. Blackwell Pub.

Gordon, G., & Esbjorn-Hargens, S. (2007). Are We Having Fun Yet? An Exploration of the Transformative Power of Play. *Journal of Humanistic Psychology,* 47, 198-222.

Gosso, Y. (2010). Play in Different Cultures. In P. K. Smith (Ed.), *Children and Play* (pp. 80–98). Wiley.

Gray, P. (2011). The Decline of Play and the Rise of Psychopathology in Children and Adolescents. *American Journal of Play*, *3*(4), 443–463.

Gray, P. (2017). What Exactly Is Play, and Why Is It Such a Powerful Vehicle for Learning? *Topics in Language Disorders*, *37*(3), 217–228.

Grieshaber, S., & McArdle, F. (2010). *The Trouble with Play*. Open University Press.

Groos, K. (1898). *The Play of Animals*. Kessinger Publishing Co.

Hart, R. (1997). *Children's Participation in Sustainable Development*. Earthscan.

Henshall, A., & Lacey, L. (2007). *Word on the Street: Children and young people's views on using local streets for play and informal recreation*. National Children's Bureau.

Herron, R. E., & Sutton-Smith, B. (1971). *Child's Play*. John Wiley and Sons, Inc.

Hewes, J. (2014). Seeking Balance in Motion: The Role of Spontaneous Free Play in Promoting Social and Emotional Health in Early Childhood Care and Education. *Children*, *1*(3), 280–301. https://doi.org/10.3390/children1030280

Hill, M., & Wood, E. (2019). 'Dead Forever': An ethnographic study of young children's interests, funds of knowledge and working theories in free play. *Learning, Culture and Social Interaction*, *23*, 100292.

Hirsh-Pasek, K. (Ed.). (2009). *A mandate for playful learning in preschool: Presenting the evidence*. Oxford University Press.

Howard, J. (2002). Eliciting Young Children's Perceptions of Play, Work and Learning Using the Activity Apperception Story Procedure. *Early Child Development and Care*, *172*(5), 489–502.

Howard, J., Jenvey, V., & Hill, C. (2006). Children's categorisation of play and learning based on social context. *Early Child Development and Care*, *176*(3–4), 379–393.

Hughes, B. (1990). Children's play - a forgotten right. *Environment and Urbanization 2*(2): 58-64.

Hughes, B. (2006). *Playtypes: Speculations and possibilities*. London Centre for Playwork, Education and Training.

Huizinga, J. (1938). *Homo Ludens: A Study of the Play-Element in Culture*. Routledge and Kegan Paul.

Isaacs, S. (1951). *Social Development in Young Children*. Routledge.

Isaacs, S. (1971). *The Nursery Years: The mind of the child from birth to sixth years*. Routledge.

Jahr, E., Eldevik, S., & Eikeseth, S. (2000). Teaching children with autism to initiate and sustain cooperative play. *Research in Developmental Disabilities*, *21*(2), 151–169.

James, A., & Prout, A. (Eds.). (1997). *Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood*. Falmer Press.

Jarvis, P., Newman, S., & Swiniarski, L. (2014). On 'becoming social': The importance of collaborative free play in childhood. *International Journal of Play*, *3*(1), 53–68.

John, A., & Wheway, R. (2004). *Can Play, Will Play: Disabled Children and Access to Outdoor Playgrounds*. National Playing Fields Association.

Jordan, R. (2003). Social Play and Autistic Spectrum Disorders: A Perspective on Theory, Implications and Educational Approaches. *Autism*, *7*(4), 347–360.

Karpatschof, B. (2013). Play, But Not Simply Play: The Anthropology of Play. In I. Schousboe & D. Winther-Lindqvist (Eds.), *Children's Play and Development—Cultural-Historical Perspectives* (pp. 251–264). Springer Netherlands.

Klein, M. (1955). The psychoanalytic play technique. *American Journal of Orthopsychiatry*, *25*(2), 223–237.

Kress, G. (1997). *Before writing: Rethinking the paths to literacy*. Routledge.

Kylin, M. (2003). Children's Dens. *Children, Youth and Environments*, *13*(1).

Lacey, L. (2007). *Street Play: A Literature Review*. National Children's Bureau.

Lansdown, G., & Lancaster, P. (2001). Promoting children's welfare by respecting their rights. In G. Pugh (Ed.), *Contemporary Issues in the Early Years: Working Collaboratively for Children*. Paul Chapman Publishing.

Lester, S., & Maudsley, M. (2007). *Play, Naturally: A review of children's natural play*. Play England.

Lester, S., & Russell, W. (2008). *Play for a change: Play, policy, and practice: a review of contemporary perspectives*. Play England : National Children's Bureau.

Lester, S., & Russell, W. (2010). *Children's Right to Play*.

Lindon, J. (2011). *Too safe for their own good: Helping children learn about risk and lifeskills* (2nd ed). National Childrens Bureau.

Lindquist, G. (2001). Elusive play and its relations to power. *Focaal – European Journal of Anthropology*, *37*, 13–23.

Liu, C., Solis, S. L., Jensen, H., Hopkins, E. J., Neale, D., Zosh, J. M., Hirsh-Pasek, K., & Whitebread, D. (2017). *Neuroscience and learning throgh play: A review of the evidence*. LEGO Foundation.

Locke, J. (2017). Some Thoughts Concerning Education. In *The Complete Works of John Locke*. Delphi Publishing Ltd.

Löfdahl, A., & Hägglund, S. (2006). Power and Participation: Social Representations among Children in Pre-school. *Social Psychology of Education*, *9*(2), 179–194.

Logsdon, T., & Roman, E. (2000). *The robot revolution*. iUniverse.com.

Louv, R. (2010). *Last child in the woods: Saving our children from nature-deficit disorder* (Rev. and updated). Atlantic Books.

Lowenfeld, M. (1991). *Play in Childhood*. Mac Keith Press ; Distributed by Cambridge University Press.

Malaby, T. M. (2007). Beyond Play: A New Approach to Games. *Games and Culture*, *2*(2), 95–113.

Manuilenko, Z. (1975). The development of voluntary behavior in preschool-age children. *Journal of Russian and East European Psychology*, *13*, 65–116.

Marsh, J., & Bishop, J. C. (2014). *Changing play: Play, media and commercial culture from the 1950s to the present day*. Open Univ. Press.

Marsh, J., Kumpulainen, K., Nisha, B., Velicu, A., Blum-Ross, A., Hyatt, D., Jónsdóttir, S. R., Levy, L., Little, S., Marusteru, G., Ólafsdóttir, M. E., Sandvik, K., Scott, F., Thestrup, K., Arnseth, H. C., Dýrfjörð, K., Jornet, A., Kjartansdóttir, S. H., Pahl, K., … Thorsteinsson, G. (2017). *Makerspaces in the Early Years: A Literature Review*. University of Sheffield: MakEY Project.

Matthews, H., & Limb, M. (2000). *Exploring the 'fourth environment': Young people's use of place and views on their environment*. ESRC.

McMillan, M. (1919). *The Nursery School*. J.M.Dent and Sons.

Meire, J. (2007). *Qualitative Research on Children's Play: A review of recent literature*. Childhood and Society Research Centre.

Moss, S. (2012). *Natural Childhood*. The National Trust.

Moyles, J. R. (2012). *A-Z of play in early childhood*. Open University Press.

Moyles, J., & Worthington, M. (2011). The Early Years Foundation Stage through the daily experiences of children. *TACTYC, Occasional Paper No. 1*.

Nakamura, J., & Csikszentmihalyi, M. (2009). The Concept of Flow. In C. R. Snyder & S. J. Lopez (Eds.), *Oxford Handbook of Positive Psychology*. Oxford University Press.

National Playing Fields Association. (2000). *Best Play: What Play Provision Should Do For Children*. National Playing Fields Association. http://www.playengland.net/wp-content/uploads/2015/09/best-play.pdf

New Forest National Park. (2018). *Wild Play Toolkit*.

NHS. (2020). *Physical activity guidelines for children*. https://www.nhs.uk/live-well/exercise/physical-activity-guidelines-children-under-five-years/

Nind, M., Flewitt, R., & Theodorou, F. (2014). Play and Inclusion. In K. Cologon (Ed.), *Inclusive Education in the Early Years: Right from the Start*. Oxford University Press.

Nwokah, E., & Ikekeonwu, C. (1998). A sociocultural comparison of Nigerian and American Children's games. In M. Duncan, G. Chick, & A. Aycock (Eds.), *Diversions and divergences in fields of play: Play & Culture Studies* (pp. 59–76). Ablex.

O'Brien, M., Jones, D., Sloan, D., & Rustin, M. (2000). Children's Independent Spatial Mobility in the Urban Public Realm. *Childhood*, *7*(3), 257–277.

Olusoga, Y. (2009). 'We don't play like that here': Social, cultural and gender perspectives on play. In A. Brock, S. Dodds, P. Jarvis, & Y. Olusoga (Eds.), *Perspectives on Play: Learning for Life* (pp. 40–59). Routledge.

Opie, I., & Opie, P. (1959). *The Lore and Language of Schoolchildren*. Oxford University Press.

Patte, M. M. (2010). The therapeutic benefits of play for hospitalized children. *Play and Culture Studies*, *10*, 3–22.

Pellegrini, A. D. (2009). *The role of play in human development*. Oxford University Press.

Pellegrini, A., & Smith, P. K. (2005). *The Nature of Play*. Guilford Press.

Pellis, S., & Pellis, V. (2011). *The Playful Brain: Venturing to the Limits of Neuroscience*. Oneworld.

Phillips, R. D. (1985). Whistling in the dark? A review of play therapy research. *Psychotherapy: Theory, Research, Practice, Training*, *22*(4), 752–760.

Piaget, J. (1936). *Origins of Intelligence in the Child*. Routledge and Kegan Paul.

Piaget, J. (1945). *Play, Dreams and Imitation in Childhood*. Heineman.

Plato. (2008). *Laws* (B. Jowett, Trans.). Cosimo.

Play England. (2008). *Play Strategy: Policy Summary*.

Play England. (2012). *Adventure Playgrounds: The essential elements*. Play England. http://www.playengland.org.uk/wp-content/uploads/2015/11/Adventure-Playgrounds.pdf

Playing Out. (2019). *How to organise playing out sessions on your street – a step by step manual*. Playing Out.

Pople, L., Rodrigues, L., & Royston, S. (2013). *Through Young Eyes: The Children's Commission on Poverty*. The Children's Society.

Potter, J., & Cowan, K. (2020). Playground as Meaning-making Space: Multimodal Making and Re-making of Meaning in the (Virtual) Playground. *Global Studies of Childhood Online*.

Poulsen, M. (2018). *CounterPlay Manifesto*. CounterPlay. http://www.counterplay.org/counterplay-manifesto/

Project Zero. (2016). *Towards a Pedagogy of Play* [Project Zero Working Paper].

Raymond, A., & Raymond, S. (2000). *Children in war*. TV Books.

Rich, D. (2003). Bang, bang! Gun play and why children need it. *Early Education*.

Robson, S. (2016). Self-regulation, metacognition and child- and adult-initiated activity: Does it matter who initiates the task? *Early Child Development and Care*, *186*(5), 764–784.

Roe, M. (2006). ‘Making a wish’: Children and the local landscape. *Local Environment*, *11*(2), 163–182.

Rogers, S. (2013). The Pedagogization of Play in Early Childhood Education—A Bernsteinian Perspective. In O. F. Lillemyr, S. Dockett, & B. Perry, *Varied Perspectives on Play and Learning: Theory and Research on Early Years Education* (pp. 159–174). Information Age Publishing.

Rogers, S., & Lapping, C. (2012). Recontextualising ‘Play’ in Early Years Pedagogy: Competence, Performance and Excess in Policy and Practice. *British Journal of Educational Studies*, *60*(3), 243–260.

Roopnarine, J. L. (2012). What is the state of play? *International Journal of Play*, *1*(3), 228–230.

Roopnarine, J. L., Johnson, J. E., & Hooper, F. H. (Eds.). (1994). *Children’s play in diverse cultures*. State University of New York Press.

Rothlein, L., & Brett, A. (1987). Children’s, teachers; and parents’ perceptions of play. *Early Childhood Research Quarterly*, *2*(1), 45–53.

Rousseau, J.-J. (1979). *Emile: Or, On education*. Basic Books.

Rubin, K. H., Fein, G. G., & Vandenberg, B. (1983). Play. In M. Hetherington (Ed.), *Handbook of child psychology, Vol. 4*. John Wiley.

Russ, S. W. (2003). Play and Creativity: Developmental issues. *Scandinavian Journal of Educational Research*, *47*(3), 291–303.

Salamone, F. A., & Salamone, V. A. (1991). Children’s games in Nigeria redux: A consideration of the 'uses' of play. *Play and Culture*, *4*(2), 129–138.

Sandseter, E. B. H. (2009). Characteristics of risky play. *Journal of Adventure Education and Outdoor Learning*, 9, 3-21.

Sandseter, E. B. H., Kleppe, R., & Sando, O. J. (2020). The Prevalence of Risky Play in Young Children’s Indoor and Outdoor Free Play. *Early Childhood Education Journal*.

Santer, J., Griffiths, C., & Goodall, D. (2007). *Free Play in Early Childhood: A literature review*. Play England.

Schwartzman, H. B. (1976). The Anthropological Study of Children’s Play. *Annual Review of Anthropology*, *5*, 289–328. https://doi.org/10.2307/2949315

Scottish Government. (2013). *Play Strategy for Scotland*. http://www.nls.uk/scotgov/2013/9781784120009.pdf

Shier, H. (1984). *Adventure Playgrounds: An Introduction*. National Playing Fields Association.

Siraj-Blatchford, I. (2014). Early Childhood Education (ECE). In T. Maynard & N. Thomas (Eds.), *An Introduction to Early Childhood Studies* (pp. 172–184). SAGE.

Smith, P. K. (2010). *Children and Play*. Wiley-Blackwell.

Sobel, D. (2002). *Children’s special places: Exploring the role of forts, dens, and bush houses in middle childhood*. Wayne State University Press.

Stephenson, A. (2003). Physical Risk-taking: Dangerous or endangered? *Early Years,* 23, 35-43.

Sutton-Smith, B. (1970). Psychology of Childlore: The Triviality Barrier. *Western Folklore*, *29*(1), 1.

Sutton-Smith, B. (1997). *The Ambiguity of Play*. Harvard University Press.

Sutton-Smith, B. (1999). Evolving a consilience of play definitions: Playfully. *Play and Culture Studies*, *2*, 239–256.

Sylva, D., Bruner, J. S., & Genova, P. (1976). The role of play in problem-solving of children 3–5 years. In J. Bruner, A. Jolly & K. Sylva (Eds.), *Play—its role in development and evolution*, New York: Basic Books.

Sylva, K., Melhuish, E. C., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2004). *The Effective Provision of Pre-School Education (EPPE) Project: Technical Paper 12—The Final Report: Effective Pre-School Education*. DfES / Institute of Education, University of London.

The Children’s Society. (2009). *The Good Childhood Inquiry*. The Children’s Society.

The LEGO Foundation, & UNICEF. (2018). *Learning through Play*. UNICEF.

Theobald, M., Danby, S., Einarsdóttir, J., Bourne, J., Jones, D., Ross, S., Knaggs, H., & Carter-Jones, C. (2015). Children’s Perspectives of Play and Learning for Educational

Practice. *Education Sciences*, *5*(4), 345–362. https://doi.org/10.3390/educsci5040345

Thomas, G., & Hocking, G. (2003). *Other People's Children*. Demos.

Trevarthen, C. (2017). Play With Infants: The Impulse for Human Story-Telling. In T. Bruce, P. Hakkarainen, & M. Bredikyte (Eds.), *The Routledge International Handbook of Play in Early Childhood*. Taylor & Francis/Routledge.

United Nations. (1989). *Convention on the Rights of the Child*.

UNICEF. (2018). *Child Friendly Cities and Communities—Handbook*. UNICEF.

United Nations. (2013). *General comment No. 17 on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts (art. 31)*. Committee on the Rights of the Child.

Uprichard, E. (2008). Children as 'Being and Becomings': Children, Childhood and Temporality. *Children & Society*, *22*(4), 303–313.

Van Gils, J. (2007). The child's right to play: The right to be a child. In A. Ang, I. Delens-Ravier, M. Delplace, C. Herman, D. Reynaert, V. Staelens, R. Steel, & M. Verheyde (Eds.), *The UN Children's Rights Convention: Theory Meets Practice: Proceedings of the International Interdisciplinary Conference on Children's Rights*. Mortsel: Intersentia.

Vygotsky, L. (1967). Imagination and Creativity in Childhood. *Journal of Russian and East European Psychology*, *42*(1), 7–97.

Vygotsky, L. (1978). Play and Its Role in the Mental Development of the Child. *Soviet Psychology*, *5*, 6–18.

Vygotsky, L. (1986). *Thought and Language* (Translation newly rev. and edited). MIT Press.

Wells, N. M., & Lekies, K. S. (2006). Nature and the Life Course: Pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environments*, *16*(1), 1–24.

Whitebread, D. (2010). Play, metacognition & self-regulation. In P. Broadhead, J. Howard, & E. Wood (Eds.), *Play and Learning in the Early Years London*. Sage.

Whitebread, D. (2012). *The Importance of Play*. University of Cambridge.

Whitebread, D. (2015). Young children learning and early years teaching. In D. Whitebread & P. Coltman (Eds.), *Teaching and Learning in the Early Years—4th Edition*. Routledge.

Whitebread, D., Neale, D., Jensen, H., Liu, C., Lynneth Solis, S., Hopkins, E., Hirsh-Pasek, K., & Zosh, J. (2017). *The role of play in children's development: A review of the evidence*. LEGO Foundation.

Willett, R., Richards, C., Marsh, J., Burn, A., Bishop, J. C., & Palgrave Connect (Online service). (2013). *Children, media and playground cultures: Ethnographic studies of school playtimes*. Palgrave Macmillan.

Wilson, P. (2012). Beyond the gaudy fence. *International Journal of Play*, *1*(1), 30–36. https://doi.org/10.1080/21594937.2012.659860

Wing, L. A. (1995). Play is not the work of the child: Young children's perceptions of work and play. *Early Childhood Research Quarterly*, *10*(2), 223–247.

Winnicott, D. W. (2009). *Playing and reality*. Routledge.

Wood, D., Bruner, J. S., & Ross, G. (1976). The Role of Tutoring in Problem Solving. *Journal of Child Psychology and Psychiatry*, *17*(2), 89–100.

Wood, E. (2010). Reconceptualizing the play–pedagogy relationship. In L. Brooker & S. Edwards (Eds.), *Engaging Play* (pp. 11–24). Open University Press.

Woolley, H., Spencer, C., Dunn, J., & Rowley, G. (1999). The child as citizen: Experiences of British town and city centres. *Journal of Urban Design*, *4*(3), 255–282.

Zosh, J. M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Solis, S. L., & Whitebread, D. (2018). Accessing the Inaccessible: Redefining Play as a Spectrum. *Frontiers in Psychology*, *9*.

Zosh, J. N., Hopkins, E., Jensen, H., Liu, C., Neale, D., Hirsh-Pasek, K., Solis, L., Whitebread, D., & LEGO Foundation. (2017). *Learning through play: A review of the evidence.*