

Literature Review: Benefits of Play

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1. Purpose

This literature review provides an overview of key benefits of play for children, young people and adults. It is intended to support community bodies, such as Town and Parish Councils, with key information and sources to support applications for play related projects. This literature review and a summary presentation were prepared to meet the needs of this broad audience.

2. Introduction

“The urge to play is nature’s way of helping us make sense of the world and our place in it. Through play we learn how our minds and bodies work and discover how others think and feel. Through play we come to know what it means to belong, to be loved and feel happiness.”

(Lego Foundation 2018)

2.1. Play has been defined in various forms, as an activity, a mindset, or a ‘state of being’ that relates to the focus and enjoyment of activities (National Institute for Play 2024). For this paper, the definition of play by Brown and Vaughan (2009) has been used: “A state of mind that one has when absorbed in an activity that provides enjoyment and a suspension of sense of time.” The research drawn on for this review was predominantly focused on ‘quality play’ where the player is actively engaged in the activity or mindset (Lego Foundation 2018). Barnett’s (2007) definition of playfulness, a related term relevant to adults’ perspective on circumstances, has also been included as relevant to this matter (see definitions table above).

There is an established body of evidence that playful learning enables children (Zosh, et al 2022) and adults (Proyer and Rush 2011) to gain a broad range of skills, knowledge, abilities and experiences which help individuals develop and thrive into adult life, positively contributing to our communities.

2.2. This literature review reflects on the benefits to children and adults from engaging in play against the following categories, based on White (2020):

- Physical wellbeing
- Mental wellbeing and happiness
- Social and communities
- Creativity and innovation
- Resilience
- Lifelong learning and self-regulation

Whilst these categories provide a useful structure, it is important to note that the benefits of play are interlinked and permeate effects through all these categories, for example improvements in an individual’s mental wellbeing can be linked to positive improvements in their resilience or creativity. This paper also includes direct quotes from authors (highlighted in green) and summary of specific case studies that provide helpful insight (highlighted in orange).

3. Terminology

3.1 For this paper, the following terms have been defined as:

Adults	A person who is 18 years or older.
Children	Under English law , this is someone under the age of 18 years old. The General Medical Council refers to children as those who do not have the maturity and understanding to make important decisions for themselves.
Play	“A state of mind that one has when absorbed in an activity that provides enjoyment and a suspension of sense of time” (Brown and Vaughan 2009).
Playfulness	“The predisposition to frame (or reframe) a situation in such a way as to provide oneself (and possibly others) with amusement, humour and/or entertainment.” (Barnett 2007)
SEND	Special Educational Needs and Disabilities – defined by NHS as a learning difficulty and/or a disability that means they need special health and education support.
Young people	The General Medical Council refers to older or more experienced children under 18 years old, who are more likely to be able to make these decisions for themselves.

4. Physical wellbeing

4.1 “Play is critical” for children’s physical development, especially for priming and connecting neurons within the brain that dictate our physical, social-emotional

and cognitive development (Brown and Vaughan 2009). These neurological connections can exist long into adult life, setting up the unique set of our own physical capacities and skills. During the first 18 months of a child's life, they learn how to control their bodies through motor coordination, communication and basic emotional responses substantially through play, such as mimicry of others and repetitive play (Lego Foundation 2018). As children continue to use and develop their physical skills through play, their spatial awareness and understanding also develops, informing their mastery of physical movement, nurturing their confidence and interactions with their local environment (Zosh et al 2022). Play allows children to explore, stress and refine their macro and micro motor skills through whole body movements and activities (White 2020), which release endorphins, improving our mood, regardless of age (Lego Foundation 2024).

Case Study: Thiel et al (2016) noted that those who engage in exercise that is fun, were more intrinsically motivated – ie, “when exercise feels like play instead of hard work, adults are more likely to engage in it.”

4.2 A life that includes play and playfulness is also positively linked to adult's wellbeing and satisfaction with life, including maintaining an active way of life (Proyer 2013). Play in adults activates neural pathways within the brain that mitigate the stress within our bodies (Brown and Vaughan 2009) - an essential skill for adults navigating an increasingly complex world. Looking specifically at the use of play outdoors, research has demonstrated a link between time spent playing or exercising outdoors to reducing the symptoms of stress in adults, leading to improved physical health (Kondo et al 2018, Mind 2021).

Case study: Research into adults with long term physical health conditions, such as diabetes, who played every day highlighted a marked improvement in their wellbeing, mood, how supported they felt and feeling more comfortable sharing with close friends/partners how their condition was affecting them (Van Vleet et al 2019).

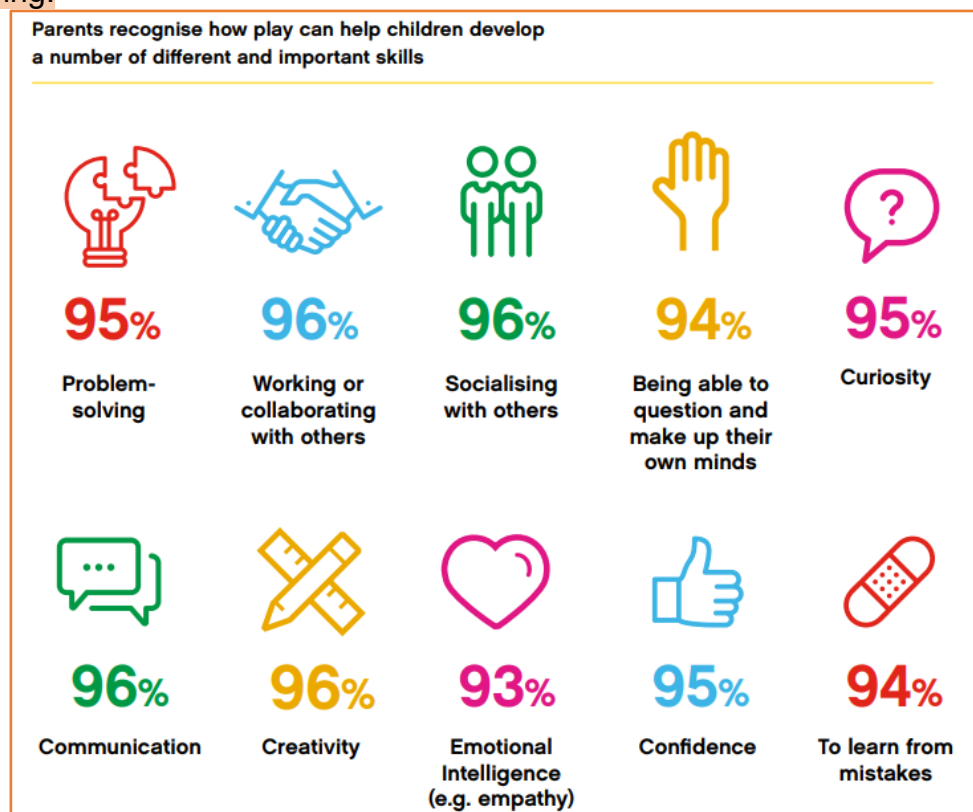
4.3 As would be expected, play is essential for the physical wellbeing of children and adults with special educational needs and disabilities, as it provides enjoyable opportunities to use the body, enjoy the sensory stimulation and develop motor control / coordination (Good Play Guide 2023, Frost et al 2012). Furthermore, play can contribute to positive physical health outcomes (UNICEF 1999, Sense 2023, Bradney et al 1998, LeMura and Maziekas 2002). Being able to play outdoors greatly supports the physical development of motor skills and sensory systems of those with disabilities, as they engage with exploring sights, smells, textures and / or sounds in natural environments (Sense 2023).

5. Mental wellbeing and happiness

5.1. Play is a perfect vehicle to stimulate a child's cognitive development, specifically skills in creating, discovering and problem-solving (Lego Foundation 2024). The endorphins released because of play, relieve the symptoms of stress and bring about a sense of joy that stimulates neural connections, creating stronger cognitive development (learning, thinking, memory). This can also incentivise

wanting to learn throughout life (Lego Foundation 2024, Trost 2003, Wilkinson 1983). In a 2018 study, over 90% of parents surveyed recognised play as essential to their child’s wellbeing, happiness and development of academic, creative and social-emotional skills (Lego Foundation 2018). Play enables children to test and react to their play partners in new or repetitive ways, building their confidence and understanding of cause and effect. As children play with more partners, their knowledge of the unpredictable continues to expand, nurturing their abilities to manage emotions, handle impulses and maintain focus under pressure (Zosh et al 2022). When children play outdoors, their physical senses are stimulated directly through, for example the feeling of the wind on their skin or the smells of the local area which help create cognitive connections with the physical sensation of stress relief and excitement with being outdoors. With sufficient play experiences outdoors, a child’s development can encourage an appreciation and enjoyment of the natural environment (White 2020).

Case study: Research carried out with over 9,000 parents across nine countries (China, Denmark, France, Germany, Russia, Saudi Arabia, Mexico, the United Kingdom and the United States of America) demonstrated parents’ views on the importance and benefits of play to children’s mental health and wellbeing:



Play well, Lego Foundation 2018

5.2. Several studies have identified that adults who engage in play or playfulness identified improvements in various aspects of their wellbeing, including:

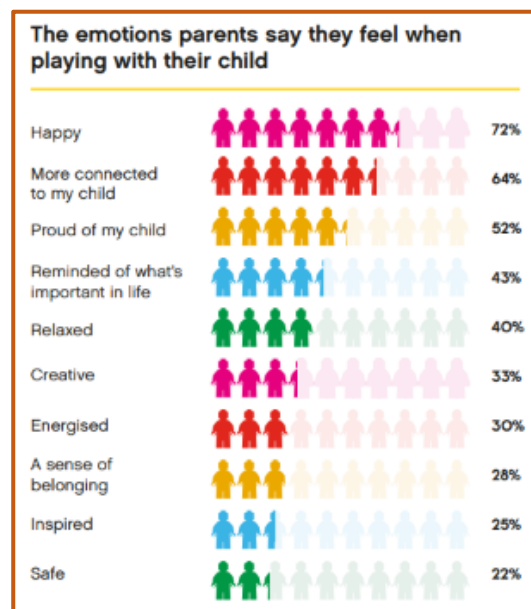
- Relieving stress and lifting moods, giving more excitement for life
- Improved ability to engage with new perspectives
- Increased sense of hope and optimism
- Improved sense of humour

- Stimulating creativity and problem solving
- Appreciation of beauty
- Improving relationships with others through further developing social skills,
- Help to heal emotional wounds and develop healthy coping skills

(Lego Foundation 2018, Robinson et al 2024, Wong 2020, Proyer 2013, Barnett 2007, Glynn and Webster 1992)

Numerous studies highlighted the benefits on adults' physical and mental health of spending time in natural environments (White 2020, Kondo et al 2018, Mind 2024). Studies have noted that, when used in moderation, play through games (specifically video, board and puzzles) can help to alleviate anxiety and depression, improving mental health (Lizuka et al. 2019, O'Shea et al. 2019; Russoniello et al. 2019).

Case study: The Play Well report (Lego Foundation 2018) noted most parents surveyed (72%) felt happy when playing with their children, with at least a third also feeling connected to their play partners (64%) and with a renewed perspective on life priorities (43%).



Play well, Lego Foundation 2018

5.3. All children, young people and adults benefit from play in terms of their mental health and happiness. Emotional development, self-awareness and enjoyment are fundamental effects of playing and are essential to a child or adult's mental wellbeing (Good Play Guide 2023). Research has strongly demonstrated the correlation between play and being playful in the satisfaction of a players' life (Proyer 2013, Marais 2022).

6. Social and communities

6.1. Benefits to families and communities

When families play together, both parents and children strongly report feeling happier, refreshed and more connected to their families, as well as providing opportunities to build trust, empathy and tolerance of others (Lego Foundation 2018). Groups of people who regularly play together, including families,

community groups, and friends are often happier, less stressed and healthier than those leading low-play lives (Lego Foundation 2018). Play within a group can also provide an opportunity for players to signal they do not present a threat to others, which fosters a sense of belonging to a group, something essential to our individual and community wellbeing (Psychology Today 2024).

Case study: Learning through play has demonstrated the capacity to enable children in situations of poverty or disadvantage to progress in learning faster than peers in more advantageous situations (Lego Foundation 2024).

Groups of individuals of mixed abilities, including individuals with and without disabilities, playing together can help demonstrate and the value of inclusion and removal of stigma-based stereotypes (Shields et al 2011).

6.2. Benefits to workplaces

Our quality of work is “highly dependent” (Robinson et al. 2024) on our wellbeing, with play and a playful mindset seen as a key factor in maintaining group morale and productivity (Guitard et al 2005). Play between adults has been shown to be enjoyable to players and provides opportunities for positive meaningful interactions (Lubbers et al 2023, Staempfli 2007, Barnett 2007). Taking moments to play in, or rather away from our work, can lead to improved cognition, problem-solving and insight, as noted:

“Taking a pause for play does a lot more than take your mind off the problem. When you play, you engage the creative side of your brain and silence your “inner editor”, that psychological barrier that censors your thoughts and ideas. This can often help you see the problem in a new light and think up fresh, creative solutions.”

(Robinson et al 2024)

Play stimulates the creative thinking, curiosity, stress relief and positive rapport that are of great benefit to workplaces (Neal 2020). Play and playful mindsets can help create atmospheres within work communities that are positive, productive, optimistic, loyal and resilient (Robinson et al 2024, Psychology Today 2024, Yu et al 2007).

7. Creativity and innovation

7.1. Playing can ‘spark’ confidence as children find their own unique ways of engaging with the world and expressing themselves (White 2020). As noted above, parents noted that playing with family members would enhance a child’s creativity and problem-solving skills (The Lego Foundation 2018). The creative skills developed through play enable children to test the cause and effect of their environment and play scenarios, which fosters their problem solving and interpretation skills (Zosh et al 2022).

“Creativity is how we tell the world about ourselves...But it’s also how we draw connections, make sense of abstract ideas and test things out.”

Lego Foundation 2024

7.2. Play enables adults to engage in opportunities where they can explore ideas, recognise connections and test solutions to solve problems (Heljakka 2023 and Back et al 2017), all of which are useful to their own resilience and enriching

their lives (Lego Foundation 2024). A third of parents surveyed across the world reported feeling more creative after sharing play with their children (Lego Foundation 2024). Between 2015 and 2020, the World Economic Forum reported a pattern of increasing prioritising of creativity as an essential skill for economies, rising from the tenth to the third top global skill for success (Lego Foundation 2018). The technology industry, particularly digital companies, have long recognised the connections between play, creativity and productivity (Robinson et al 2024).

8. Resilience

- 8.1. Play can help children find moments of calm and control, which helps boost their natural resilience to an ever-changing world (Lego Foundation 2024). Children and parents noted that playing with family members created safe opportunities to take creative risks, as players test (emerging) abilities and personal senses of humour (Lego Foundation 2018). At around 24 months old, a child begins to explore the world through creativity, imagination and socialisation, which nurtures the development of their own capacity to engage with others. This includes their ability to manage the stress and anxieties of an unpredictable world (Lego Foundation 2018, Singer et al 2006, Ginsburg 2007, Staempfli 2007). Play provides opportunities for children of all ages, abilities and disabilities to set themselves challenges, learn how to keep themselves safe, and understand the cause and effect they have on their world (White 2020, Abed and Shackelford 2022). In a study of 12-19 year olds, Staempfli (2007) identified the positive correlations between a young person's playfulness, their physical health, their range of coping styles and satisfaction with life.
- 8.2. Studies in adults have shown that engaging in play helps improve their intrinsic motivation for tasks (Thiel et al 2016, Amabile et al. 1994) and our resilience to challenging circumstances, disappointment and loss (Robinson et al 2024). Play and playful mindsets in adults has demonstratable effects in their workplaces, as it nurtures creating relationships that are positive, productive, optimistic, loyal and resilient (Robinson et al 2024, Psychology Today 2024). Adults regularly engaging in play, particularly with their own children, create an intrinsic permission to prioritise the nurturing experience of play, not thinking about other 'grown-up' problems, reinforcing their flexibility and resilience to cope with the complex adult world (Lego Foundation 2018, Wong 2020). Play has shown to provide an increase in players' energy levels, and resilience to 'burnout' in high stress situations, such as during the Covid-19 pandemic (Clifford et al 2022). Play allows adults to forget about work, commitments and "to be social in an unstructured, creative way" (Robinson et al 2024). The benefit of this permitted escapism is the 'recharging' of a person's resilience by giving them a mental and emotional break from some of the pressures they may be experiencing (Robinson et al 2024). As mentioned previously, there is growing evidence that highlights the positive impact playfulness, including humour, on those living with

chronic health conditions and disabilities (Lubbers et al 2023, Clifford et al. 2022, Van Fleet 2019).

9. Lifelong learning and self-regulation

9.1. Play is a key factor for preparing brains, especially children's, for learning – the making a new neural connections (Brown and Vaughan 2009). At the same time, the enjoyment of play nurtures intrinsic motivation and cultivates the capacity for lifelong learning (Lego Foundation 2018, 2024, Amabile et al 1994). Play provides opportunities for exploring new situations through whole body experiences, the processing of which leads to learning (White 2020). Play also contributes to a child's capacity to concentrate on activities for extended periods of time (Zosh et al 2022). The interweaving of the range of skills and capacities developed through regular play contribute to the unique individual's personality and enjoyment of activities, including activities that contribute to learning (Zosh et al. 2022, Brown and Vaughan 2009). Playfulness in both children and adults has a positive correlation with an individual's intellectual curiosity and love of learning (Marais 2022).

“When learning is playful, children get so immersed in creating strategies and solving problems, they'll want to stretch their brain cells. The joy of play gives them the incentive to develop complex reasoning skills, memory, and concentration – much more effectively than being told to sit still and reel off facts.”

Lego Foundations 2024

9.2. Play and playfulness has been demonstrated to improve players' intrinsic motivation and motivation towards life goals (Lubbers et al 2023, Amabile et al 1994, Proyer 2012 and 2014). Adults who engage in play and playfulness are more likely to be curious about their world and pursuing interests into life-long learning. Neale (2020), of the Centre for Research on Play in Education, Development and Learning (PEDAL) at the University of Cambridge, noted reports of games and playful activities used in adult education and training go back to the early 19th Century. Using play as a method for learning continues today, in training for professions such as medicine and business management. Learning situations with adults can be greatly enhanced through the use of playful mindsets and activities in low-stakes supportive scenarios before the learning needs application in the 'real-world' (Hooker 2021, Hooker and Heard 2018).

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