

**petits Filous<sup>®</sup>**



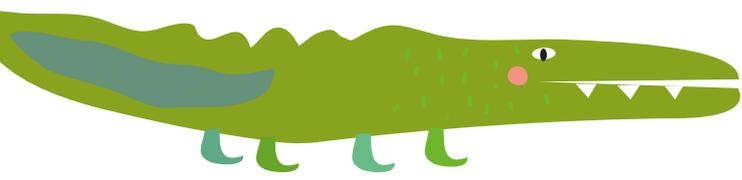
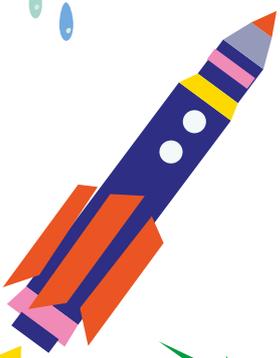
**The future of**

**IMAGINATION**

**With expert contributions from**

**Futurist  
MARK STEVENSON**

**&  
institute of  
!magination**





# What is free play and why does it matter?

*'Play is the highest expression of human development in childhood, for it alone is the free expression of what is in a child's soul.'*

Friedrich Froebel, the 'father' of modern kindergarten



## The good, the bad and the ugly

*Introduction by Mark Stevenson*

As a (reluctant) futurist it's part of my job to put our turbulent times into some kind of context. So, let's talk about The Good, The Bad and Ugly – and why nurturing our children's imagination will be so crucial in the coming decades.

I'm going to start with The Bad because I think it's important to end on a (genuine) high note, but be warned, a couple of paragraphs from now you may be feeling despondent. Stick with me, I promise it gets better.

The Bad is that everything is broken – and we all know it. Democracy, unchanged in centuries, is in crisis and retreat. Global income inequality continues to soar. The richest 1% now own 50% of the world's wealth. Our soils are being eroded at a frightening pace. Half of the world's population lives under water stress. Climate Change is becoming a stark and frightening reality. It's no surprise therefore that we're witnessing the wholesale evaporation of trust in the institutions that govern society.

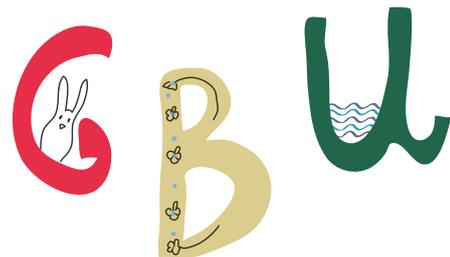
From politics, to organised religion, to the press, to big business, the majority of us now, with much justification, lack confidence in the ability or willingness of those charged with dealing with the problems we face to step up to the plate. It's this culture of distrust that also underpins our chronic disengagement from our jobs - because so many of us feel we're working for an unthinking blind giant that cares little for our environment or future wellbeing – and our employment contract is as much bribery as reward.

On top of that, technology, often touted as 'the answer' to so many of our problems, threatens to automate half our jobs within 20 years. It's all nicely summed up by William Burroughs who wrote 'after one look at this planet any visitor from outer space would say 'I want to see the manager.' That alien might reasonably ask 'how did this happen?'

Just at the time we need to radically rethink the world, we have created educational and work cultures that encourage conformity and repetition. Faced with our current challenges, every organisation sings the virtues of innovation while most maintain cultures that actively stifle it. Keeping the status quo seems to be the state of the art. The education sector is a prime example.

Successive governments are understandably keen to demonstrate they're improving things education-wise. To do that they need statistics, rankings of numeracy, literacy and the like. But the skills of innovation are not so easy to measure. How does one assess, for instance, an individual's ability to think creatively or ask the right question? How can we evaluate someone's capacity for empathy or their ability to collaborate? There is no simple answer. And so, nations create curriculums skewed toward skills that can be easily examined.

Students, parents, teachers and nations, keen to score well, become fixated on exam results; a culture which inevitably sidelines the harder to examine, so-called 'soft' skills that we desperately need if we're to get ourselves out this mess. Worse, we are training our children to be good at the very things the machines will outperform them at in a (silicon) heartbeat.



**This report outlines the case for reclaiming one of the bedrocks of creativity and innovation, and the first to be taken from us – free play. Often associated with triviality or frivolousness, play is anything but. From our neurological development through to our ability to handle complexity and change, play is a foundation that, if taken away, severely limits our abilities and potential, both as individuals and as a species.**

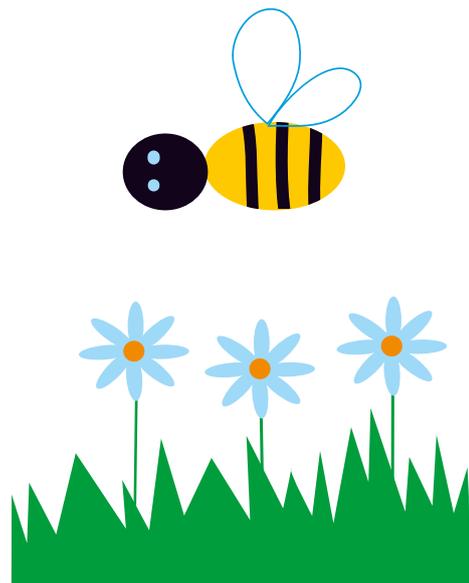
In fact, one answer to that alien asking ‘how did this happen?’ might be, ‘we stopped playing too soon.’ As Tom Doust, The Institute of Imagination’s Director of Experience and Learning says later in these pages ‘by providing environments that foster the freedom to play, we are giving children the best start in life and the best chance to respond creatively to a rapidly changing world.’

*Which leads me onto  
The Good – and that is  
that everything is fixable.*

I know this because it’s my day job to search out workable, sustainable and scalable solutions to address our grand challenges. From innovations in renewables and agriculture, to new approaches to governance, education and finance, I’ve seen what creative minds can do, and it gives me enormous hope. Some people are lucky enough to retain the creative spark that our culture so often seeks to diminish.

What is interesting to me is that so many of the innovators we celebrate are outsiders, who through circumstance or accident found themselves in a space outside the system, where their minds could think new thoughts and challenge old dogmas. I wonder what the world would be like if that freedom was afforded to all of us? If the system didn’t stifle our natural proclivities to play and creativity, but encouraged them? How much quicker would we address our grand challenges? How much happier could we be?

The Ugly? Well, the coming decades are going to get very messy as the old world necessarily has to make way for the new. How ugly it gets, and how long that ugliness lasts is dependent on how innovative and creative we can get, and how soon. We need a generation of radical innovators and we won’t get them if we curtail their creativity from childhood. Reclaiming play, therefore, is one of the most crucial steps we can take in re-imagining ourselves for the future.



## What is free play?

At its core, free play is all about imagination. With a cardboard box and a little pot, a child can host a tea party, launch a rocket, sail to Australia, or become a robot. In the garden they can explore the jungle, in the kitchen they can build an entire town from empty packaging.

*But, it's not a case of parents letting them 'mess about' in place of doing something useful.*

Free play is arguably the most useful thing a child can do, in terms of their mental, physical and emotional health, not to mention their future happiness and success.

**Play England, a charity campaigning for space and freedom for children to play, describes free play as:**

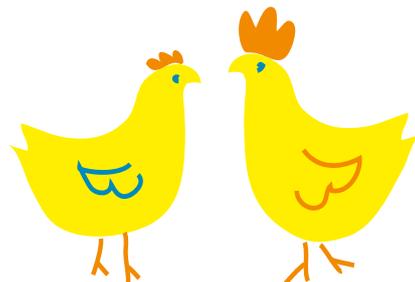
*'Children choosing what they want to do, how they want to do it and when to stop and try something else. Free play has no external goals set by adults.'*

### Free play also helps children to:

- Explore new materials, and work out how to use them
- Solve problems without help
- Improve flexible thinking
- Stay physically fit and strong
- Develop emotional balance and combat anxiety
- Learn social skills, including negotiation
- Boost confidence and discover their own special talents
- Take reasonable risks and challenge their fears safely

While carers can supervise if necessary, they are not directly involved. Children are trusted to make choices, and set the boundaries. For learning and growth, the activity should be highly enjoyable, too.

But, Petits Filous' survey discovered that many parents misunderstand what 'free play' means, with 10% thinking it's a planned playtime, 17% assuming a task or challenge must be involved and 50% believing it means that children can pick whatever they want to play with; including screens or specific toys.



## Imagination Nation

Imagination is the key to free playing; if children can use their imagination freely, they build confidence in their own creativity, test ideas without fearing failure, and enjoy following wherever it takes them.

The Institute of Imagination, a UK charity which supports play-based learning, believes that fostering children's imaginations is key to our future success.

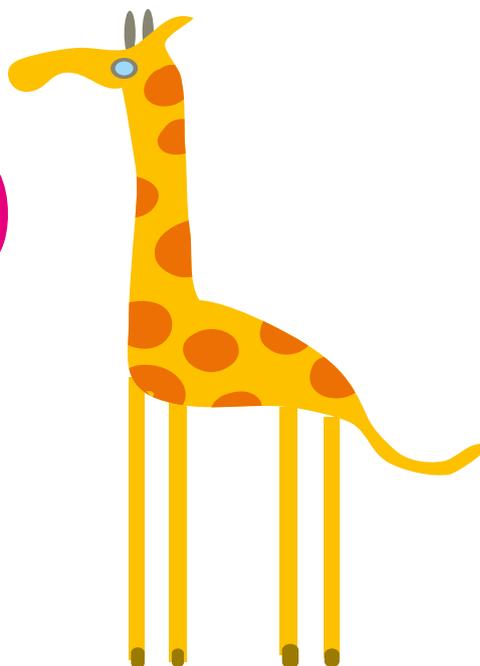
'Imagination matters because the world our children are inheriting is arriving and it's radically different from the past. The way we live and work, industries we thought were eternal, knowledge and data – it's all evolving so rapidly that humanity's greatest resource, creativity, needs to be taken seriously.'

**Tom Doust, The Institute of Imagination's Director of Experience and Learning**

Research has proved, many times over, that free play develops key skills, including critical thinking, problem-solving and social skills. Children's brains are designed to learn through play, to prepare them for life – whether that's investigating social structures by playing 'families,' exploring their environment on a cardboard pirate ship, or testing their strength and motor skills by running and jumping.

'It's imagination that sets us apart from the rest of life on earth,' says eminent education adviser and creativity advocate Sir Ken Robinson. 'With imagination you can visit the past; you can anticipate the future. It's the wellspring of creativity.'

Free play's importance continues right through childhood, constantly developing a child's understanding of the world, and confidence in their own skills and judgment. Free play is shaped by the available materials in the child's environment — such as dressing up clothes, buckets, pots, cardboard and cushions – and also by the culture of the home they grow up in; as children love to imitate their parents' lifestyles and jobs. But most importantly, it's fun.



## The growing brain

Several neuroscientific studies have found that free play is a 'central mechanism' in learning.\* Playful behaviour, practiced by all small mammals, leads to synaptic growth, furthering connections in the brain — particularly the frontal cortex, which governs higher mental functions like decision making and planning.

Experts, too, have long-agreed that active free play is vital for a healthy developing brain. Mid-20th century Educational Psychologist Jean Piaget was fascinated by how children think, and came to believe that they build awareness through engaging with their environment, via 'assimilation and accommodation,' that is, taking in new knowledge, then adapting it to fit their understanding.

Developmental psychologist Lev Vygotsky, who worked in the early 20th century, thought that children's learning happens mostly within a social context, and that children always play with purpose, striving to learn through their activities. 'In play, a child behaves beyond his average age, above his daily behaviour; in play it is as though he were a head taller than himself', he observed.

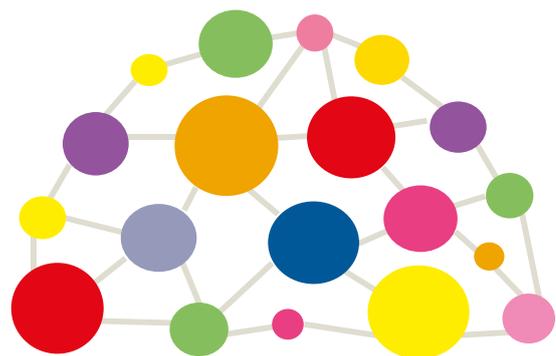
Play can be an end in itself, of course, but even without knowing it children are exploring, testing and discarding ideas and solutions to problems, and fusing thought and action in preparation for adulthood. That's why free play has been a vital part of childhood throughout history, and across all cultures.

## Thinking with freedom

Developing creativity and free thinking is a crucial life skill, and one which is stunted if parents always step in to 'save' a child from failure or disappointment.

Imaginary games develop dexterity, mental strength and emotional resilience, while play develops new pathways in the child's brain. Children play by instinct, without instruction, in a quest to become like the adults they know.

Free play helps children to learn new skills, practice existing abilities and build confidence, while 'undirected playing' with other kids means learning to work with others, to organise, set boundaries and compromise. When children have the time and freedom to move at their own speed, their brain, physical ability and understanding of emotions develops too.



\*Pellis & Pellis 'The Playful Brain: Venturing to the limits of neuroscience

## Working through worry

Free play can also let children explore their emotions about a variety of positive and negative experiences, from moving house to starting a new school or coping with a hospital visit.

Psychotherapists, including Freud, have long agreed that children work through anxieties by playing them out, using fantasy to explore the fears and therefore, reduce their dread. And, it's vital that adults let the children figure it out.

*'Adult caution and fear reduce children's opportunities to set themselves challenges and take risks'*

### Play England's report

Sometimes, stepping back and allowing a child to fail, start again, and succeed next time, is the best thing a carer can do. Through seeking out manageable risks, children grow in confidence and certainty. When they're prevented from making mistakes, they lose the opportunity to learn.

When children are fully engaged in imaginative play, they're often hard to distract, as every parent who's tried to get a child to come in for lunch will know. But, as much as adults can become involved in a fascinating conversation, or challenging work, a child in the midst of an imaginary game is just as committed to seeing it through. And there's a very good reason for that.





## What happens without free play?

The connections or synapses in a baby's brain grow 20-fold in their first 36 months; from around 10 trillion at birth, to 200 trillion at age three. Babies are born with 25 per cent of their brains developed and, by three, it's 80 percent.

The infant brain is hugely absorbent and flexible, and early experiences shape its pathways. This immensely rapid learning curve can be mutated by neglect, trauma or a negative or unsupportive environment, which will directly influence their future development, learning ability and empathy.

Children who are not encouraged and enabled to play freely and imaginatively can face a bleak future. Failing to allow for this, alongside other fundamental needs in childhood, can lead to 'wasted potential, low achievement...low work aspirations (and) antisocial behaviour, which now typifies millions of lives' says Play England. There are costs not only to the individual, but to their families and society as a whole.

Yet, Petits Filous' survey found that a worrying 53% of parents do not know what free play is and only 37% claimed that their children 'often' are able to play freely. Conversely, over a quarter (29%) said that their children spent up to an hour daily in 'structured' play, such as playing with a specific toy. And, while many households have rules about screen time, 31% of children spend up to an hour with a screen daily; 7% spend up to three solid hours watching TV or playing computer games, and 10% of parents have no idea how much screen time their child has daily

Furthermore, research\* shows that 'play deprivation' has a significant and negative effect on children's psychological wellbeing and may be contributing to the current epidemic of anxiety and depression amongst adolescents – around 20% suffer one or both conditions — who have grown up over-scheduled, constantly online, and with little room to explore and imagine.

But it isn't just 'bad parenting' or a deprived environment that may mean free play is unavailable to growing children. A report from the American Association of Paediatrics (The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds) points to the current trend for over-scheduling, as a result of academic pressure and the desire to be a 'good parent.'

### Factors that have reduced the availability of Free Play in children's lives include:

- Focus on academic and 'enrichment' activities and heavily scheduled after-school classes and playdates
- Busy working parents who can't pick up children from the carer's until it's time for dinner, bath and bed
- A lack of outdoor and indoor space in our squeezed cities, meaning children are encouraged towards 'tidy' activities such as iPad or X-box games
- Primary schools that focus on academic achievement rather than holistic 'whole person' development

(\*Gray, P. 2011, 'The Decline of Play and the Rise of Psychopathology on Children and Adolescents.' American Journal of Play)

A recent report\* found that 25 per cent of children felt their parents organise too many activities for them, and 26 per cent of parents agree that their kids are just too busy. Petits Filous' own study found that over a third (36%) of parents feel pressurised to schedule extracurricular activities for their children.

Experts agree, however, that children need regular access to a play environment that is open-ended and flexible, and for the materials available to encourage imagination and different options, rather than prescriptive games.

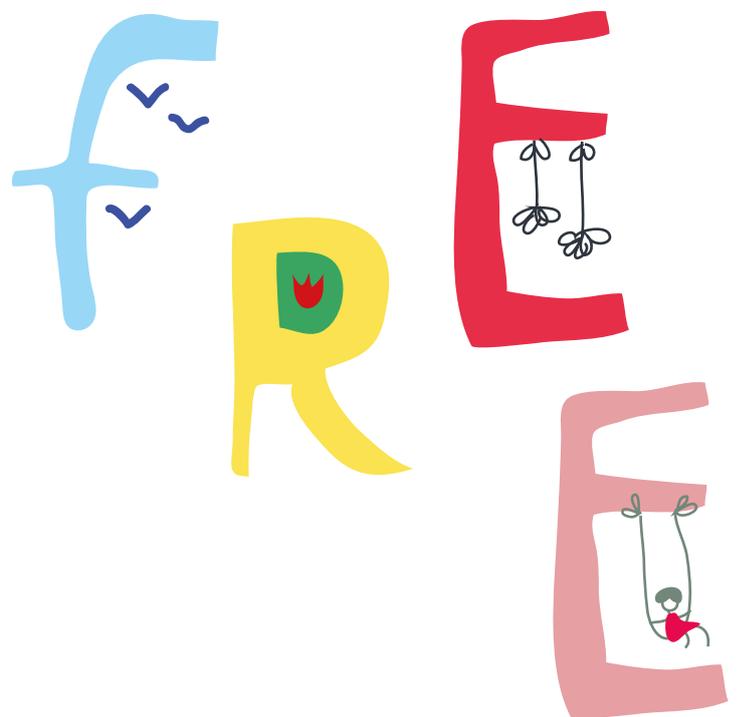
**A 2015 All-Parliamentary Committee report on play provision adds:**

*'Play does not have to be expensive and need not necessitate financial outlay on the latest toy fads or expensive equipment. Many household items can be appropriated by children and incorporated into their play.'*

So, rather than packing every spare second with 'enrichment', experts agree that children need regular access to a play environment that is open-ended and flexible, and for the materials available to encourage imagination and different options, rather than prescriptive games.

When children have the time and space to enjoy imaginative play, the games become more complex, may extend over days or weeks — every parent has been begged never to dismantle the blanket fort or packing-box house —and the activity grows more engaging and mentally challenging.

**Free Play is essential to wellbeing.**



(\*IKEA)

petits Filous®

# Play school: Imagination in education

*'Enforced learning will not stay in the mind. So, avoid compulsion and let your children's lessons take the form of play.'*

Plato



Over the past 20 years, time for free play in UK primary schools and even nurseries have gradually been eroded as OFSTED inspections, SATS at age 7 and league tables have been prioritised over both freedom and fun.

Break times have been shortened, playing fields sold, and an emphasis on organised sports and extracurricular activities means that breaks and lunch hours are often no longer a time for children to run free, use their imaginations and invent open-ended games, but just another opportunity to be organised and corralled by well-meaning adults.

But, a growing body of education experts believes that the reduction of imaginative play is doing more harm than good to children, and are calling for a new, more flexible approach.

## Why play matters at school

**Play is vital to any academic environment, according to a recent report by the American Academy of Paediatrics:**

*'It ensures that the school setting attends to the social and emotional development of children, as well as their cognitive development.'*

Research shows it also allows younger children to adjust fully to the unfamiliar demands of school.

## Free play time

- Boosts children's willingness and ability to learn
- Helps to prevent restlessness and lack of focus in lessons
- Improves problem-solving skills
- Raises confidence

The report also found that social and emotional learning is best achieved when it's blended with more formal teaching, rather than considered separate; free play that allows for imaginative games, inventions and interactions with friends is a crucial part of child development.

**It's also vital for creativity, argues Sir Ken Robinson\*, who has advised governments on education policy around the world.**

*'We're all agreed on the extraordinary abilities that children have,' he says. 'All kids have tremendous talents and we squander them ruthlessly. My contention is that creativity is as important in education as literacy, and we should treat it with the same status.'*



\*[www.ted.com/talks/ken\\_robinson\\_says\\_schools\\_kill\\_creativity](http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity) | [www.ted.com/speakers/sir\\_ken\\_robinson](http://www.ted.com/speakers/sir_ken_robinson)

## Where are we going wrong?

Imaginative play has enormous benefits across the age spectrum; including elevated learning ability, better focus, growing confidence and improved numeracy and literacy skills.

The challenge often is that teachers and parents aren't aware of it, and it does not chime with the current test-based, formal learning approach favoured by successive UK governments. It's not that schools deliberately want to stifle creativity, but rather, they simply don't understand its value.

A recent report from play research charity The LEGO Foundation found that underestimating the importance of free play means it is seldom considered a priority.

*'If parents and governments push children towards numeracy and literacy earlier and earlier, it means they miss out on the early play-based learning that helps to develop creativity, problem-solving and empathy'*

Hanne Rasmussen, Head of the Lego Foundation

Indeed, the school starting age in the UK can be as young as 4, with formal learning prioritised from the beginning, and just three years later 7-year olds are subjected to the pressure of SATS.

**Allowing children the chance to try and fail on their own terms is essential, says Sir Ken Robinson.**

*'Kids will take a chance. If they don't know, they'll have a go- they aren't scared of being wrong,'* he says. *'By the time they get to be adults, most kids have lost that capacity.'* Thanks to the formalising of education, he argues, *'we are educating people out of their creative capacity.'*

The education system is designed to steer kids away from the things they're most interested in. Academic ability has come to dominate our view of intelligence — the consequence is that many highly talented, creative people think they're not.' His view that 'we need to radically rethink our view of intelligence' is borne out by alarming statistics.



According to a report from The Pearson Foundation, one in 3 children leaves primary school without reaching expected standards in reading, writing and maths combined.

Yet, research also shows that children who take part in arts activities prior to starting school are ahead in reading and maths at age nine, and an Australian study (NAPLAN) showed that children had literacy and numeracy scores equivalent to 12 weeks (literacy) and 6 weeks ahead of average (numeracy) if they were encouraged in imaginative play and arts activities at home.

#### **A UK All-Parliamentary report on early education also reported**

**'By the end of their sixth year in school, children whose pre-school model had been play-based achieved significantly higher marks than those who had experienced academically-directed pre-school programmes.'**

It's clear that far from being a waste of formal education time, free play actively supports children's learning in significant and far-reaching ways.

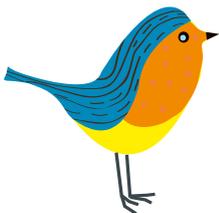
But we live in a results-driven system where governments are determined to compete globally with countries whose workforces were drilled in formal lessons from toddler-hood, schools are focused on OFSTED rankings and test results and even parents are constantly urged to fill all spare time with extra-curricular 'enrichment,' from extra tutoring to baby Mandarin lessons. It's clear that we're not allowing growing children the space they need to find joy in free play and learn through imagination and natural inventiveness.

Not only is the evidence in favour of free play in education stacking up, it's also the case that plunging children into formal education too early has measurably negative consequences.

#### **A paper published in the Journal of the National Association for the Education of Young Children (2005) reported**

**'Children directed to learning by rote in early years settings will concentrate upon a very specific skill, using parts of the brain that are immature; thus potentially endangering normal brain development and growth.'**

Without play in school, children become bored, stressed, anxious and unfocused.



## The Finnish solution

In Finland, where children don't start formal learning until they're 7, the education system is widely considered to be amongst the best in the world.

Teachers are given great flexibility and responsibility for their lessons, and children are assessed only by their teacher who has come to know them well and understand their unique capabilities. The Finnish school system gets academic results, too - it has ranked as the best in Europe for the past 16 years - but the emphasis in early schooling is not on 'literacy and numeracy' but on creative play.

The wellbeing and happiness of children is paramount, and learning through free play is a cornerstone of the curriculum. Educators believe that once a child is fully engaged and happy in an imaginative game or task, they are naturally refining their learning and challenging themselves without any external pressure to 'succeed'.

This approach develops attention span, perseverance, concentration and problem solving – and at the age of four, these qualities are better predictors of future academic achievement than reading age or maths ability. Rasmussen believes that children should be involved in play-based education well into Key stage 2 (ages 7-11). Further research from New Zealand has found that formal literacy lessons don't improve reading ability at this age, and the pressure can even put children off reading.



## What needs to change?

Empowering children to enjoy learning is possible, and it begins with trusting them to play without constant guidance, and offering them materials to explore without instructions.

*'Children and young people are natural inventors.*

*Our education systems need to move away from an entrenched approach to single disciplinary teaching and learning, and create space and environments for children and young people to experiment and invent.'*

**Tom Doust, of the Institute of Imagination**

Back to Finland – where education begins at 7 - there are shorter schooldays, and schoolchildren are given a 15-minute break for every 45 minutes of lessons. During that time they can run around outside, play with classmates or by themselves and it's reported that, after each break, the children are more - not less - focused on more formal learning.

Another study from the University of Minnesota also found that this approach led to more attentiveness from children after their breaks. Clearly, a fun and free-play approach to learning is vital to ensure that children reach their teens fulfilling their potential- socially, emotionally and intellectually. The All-Parliamentary Report set out several recommendations for the government, including more time for play in schools and better training for early-years teachers and supervisors in the importance of free play in and around the classroom environment.

**The report states, 'A playful approach to learning is beneficial to children in early years' settings and has a lasting legacy on their later academic performance. Such an approach should therefore be championed by government and fully incorporated into the professional training of the early years' workforce.'**

Creative play is also known to aid problem solving, creativity and performance in school tasks according to research by educationalists\* while a further study in Barcelona found that children learn more effectively in green spaces, with outcomes such as improved memory and focus.



## Future solutions

There are already several ‘child-centred’ approaches to learning, developed by eminent 20th century educationalists, that promote free play in the education system – the best-known is the Montessori Method, which some educationalists believe should be incorporated into government policy for its outstanding results.

The Montessori Method puts the emphasis on the individual child’s development and champions active learning, independence, co-operation and curiosity. Maria Montessori believed that children should ‘educate themselves’. It aims to develop the ‘whole child’ rather than specific abilities, and free and imaginative play is very much a part of this approach. Between ages 3-6, children learn through hands-on, active experience, often alone, and without adult interference or correction. Advocates believe the method encourages free thinking, confidence and inventiveness in later life.

**Famously successful Montessori-educated people include:**

- Princes William and Harry
- Jeff Bezos (Amazon founder)
- Gabriel Garcia Marquez (author)
- Larry Page and Sergey Brin – founders of Google
- Anne Frank
- Steve Wozniak (co-founder of Apple) believes that Montessori schools ‘do a better job than most in teaching independent thinking.’

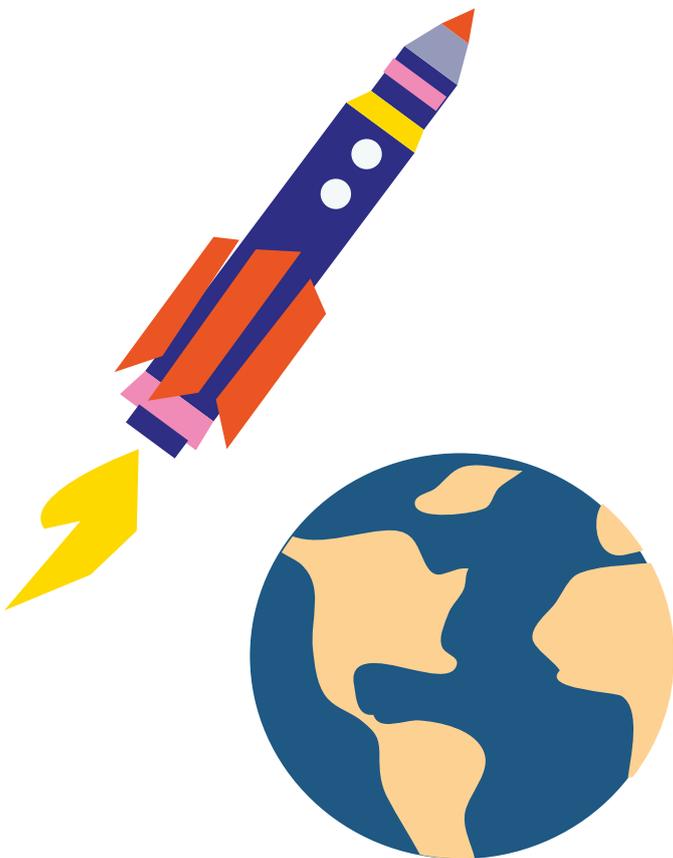
Carol Dweck, educationalist and Professor of Psychology at Stanford University, US, believes, ‘if parents want to give their children a gift, the best thing they can do is to teach their children to love challenges, be intrigued by mistakes, enjoy effort, and keep on learning. That way, their children don’t have to be slaves of praise. They will have a lifelong way to build and repair their own confidence.’

Sir Ken Robinson is also determined that our approach to education needs to change. ‘Creativity is the process of having original ideas that have value’ he says. This can only come about from allowing children to imagine, to experiment, to invent and sometimes to fail, but to keep trying until they succeed, without adults stepping in to correct them.



According to Tom Doust of the Institute of Imagination, things are already improving. 'Momentum is now building for a greater focus on free play, from organisations with an interest in learning outside of classrooms and from parents who are increasingly becoming conscious of their child's welfare in formal learning environments,' he says.

*'The challenge is in changing the current mindset of an academic, results-driven society where play is seen as frivolous.'*



Instead, we need to look at free play as providing a chance for children to develop the 'core skills' they will need for life. These are:

- Cognitive skills (concentration, problem solving)
- Social skills (abilities to work collaboratively and to communicate)
- Creative skills (transforming original ideas in reality)

When study after study reaches the same conclusion - that children need more, not less time for free play, more, not less focus on imagination and more time in and out of school to explore the potential of different materials and invent their own playthings - isn't it time we listened? Particularly when children themselves are saying the same thing.

'These skills can be nurtured from a young age through the freedom to play,' says Tom Doust.

*'By providing environments that foster the freedom to play, we are giving children the best start in life and the best chance to respond creatively to a rapidly changing world.'*

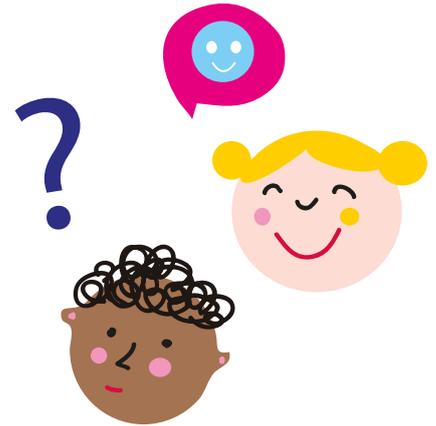
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## Section 3: Free play's importance to industry

*'Play permits the child to resolve in symbolic form unsolved problems of the past and to cope directly or symbolically with present concerns. It is also his most significant tool for preparing him-self for the future and its tasks.'*

Bruno Bettelheim, child psychologist





## Play on the balance sheet

*Introduction by Mark Stevenson*

I am often called into organisations to help them innovate. That so many organisations need outside help with what should be a natural human skill should worry us all.

It's why 'innovation consultancies' (some good, some bad) abound; often organisations are looking for a quick fix. It amazes me how some think that gathering together a group of staff and sticking them in a room with some post-it notes, a facilitator and the invitation to 'brainstorm' will result in innovative ideas.

**In fact, there is nothing more powerful at emptying your brain of unique thoughts than the invitation to**

*'have an idea! Now!'*

Similarly, creating an 'innovation space' with primary colours on the walls and some bean bags won't solve the problem. Nor will the new edgy corporate identity, or a HR manual re-written with the word 'creativity' somewhere on the front page and peppered throughout the document. Stating one of your 'core values' is innovation won't work either.

**So, what is innovation really? I think about this a lot and have my own definition. It's partial, but I think it's a pretty good starting point. When I work with my clients I say that**

*'innovation is the culture of asking the right questions.'*

Truly innovative organisations don't see innovation as set of skills to deploy but as a mindset and culture that pervades the very fibre of the business. Building a culture that allows the kind of free thinking needed to come up with good questions and creative solutions to them is not easy, especially for organisations mired in work cultures that delight in specialising people into extreme boredom, but it can be done – and play is an essential catalyst.

**My friend Tim Reid, one of the world's most successful innovation experts says,**

*'you know when the good ideas are about to come. It's when people start laughing.'*

Tim should know, when he's not helping organisations come up with new ways of doing things he's an award-winning comedy writer. ('comedians are constant innovators,' he says, 'because no-one laughs at an old joke'). At the heart of a culture of innovation is the concept of play: playing with ideas, roles, responsibilities, assumptions. An organisation that cannot play cannot, almost by definition, innovate. It should therefore come as no surprise that the two biggest business success stories of the last 25 years, Google and Amazon, were created by people who were taught in Montessori Schools; where play is seen as a core tool for both learning and being creative.

The message is clear. Losing the ability to play is seriously bad for business and in a post-Brexit Britain we're going to need a lot of creativity to keep the economy healthy. Helping our children thrive through play and keeping the mindset that comes with play alive into adulthood isn't good sense for just for emotional and intellectual reasons. It makes sense for cold hard economic ones too.

## Why free play matters in industry

Experts now know that early free play is a key indicator of later success. As over-scheduled, academically pressurised millennials grow up and enter the workplace, the consequences of missing out are becoming increasingly clear.

A report from the Pearson Foundation found that many employers have serious concerns about current graduates' abilities. A significant 23% of managers report that young employees show weakness when it comes to problem solving, over 1/3 (37%) feel that young people have a negative attitude to work, and a huge 81% of employers now value 'employability skills' including social, problem-solving and motivational skills over degree subject and even class of degree. Many top employers in industry agree that skills such as effective communication should be actively developed in childhood, a priority for 42%.

Most sectors across industry and manufacturing are chiefly interested in employing graduates and school leavers with technology skills, and expect school leavers to be able to accept responsibility, manage time effectively and be prepared to improve their performance. Yet, although professional jobs are at a premium in today's climate, many employees are unable to use creative thinking or innovative ideas to come up with solutions to problems at work; 40% of employers who need STEM skills are having difficulties recruiting and 50% expect further difficulties in the future. Furthermore, a huge 71% expect to need more staff with leadership and management abilities in the coming years.

Sadly, for those school leavers who can't get jobs, the problems are even greater. A 2010 Audit Commission Report estimated that the population of 16-18 years old not in education, employment or training (NEET), would cost the tax payer £13 billion over their lifetimes, plus a further £22 billion in loss to the economy. Con-versely, a study in the US of early play-based education revealed that for every \$1 invested, \$7-12 was returned to society.\*

Furthermore, a study published in 2012 (Mourshed, M., Farrell, D. & Barton, D., 2012, 'Education to Employment: Designing a System that Works,' New York: McKinsey & Company) revealed that 45% of employers in the US felt the main cause of recruitment difficulties was an absence of 'employability' skills in graduates, and globally, only 42% felt that new graduates were prepared for the demands of the workplace.

Yet, research has proved repeatedly that fostering imagination and creative thinking in children through free play, as well as the time and space to work out their own solutions to problems, is key to their development. The current epidemic of under-prepared graduates is testimony to the fact that these key skills are at risk; due to a combination of academic pressure, over-scheduling, parental anxiety, and a simple lack of awareness.





## What needs to change?

The future of the workplace is not static and, while in the past graduates could expect to stay with the same company for life, a typical work-life now means a 'portfolio' career, with stints of freelancing, temporary employment, or a varied pro-gression between different companies and even careers.

*'An increasingly inter-connected and dynamic world means children today will find themselves changing jobs several times during their lives, and they will have to invent most of those jobs and the job profiles involved' according to the recent Lego Foundation report.*

With increasing job competition and a scramble for good degree courses, it's more vital than ever that children reach adulthood with a full roster of skills they can draw on, from resilience to communication to self-confidence.

*That's why researchers agree on the five key factors to boost learning that must be fostered through play in early childhood, and built on as they grow up:*



### Joy

Without joy, children don't want to play. The element of surprise, fun and success at mastering a challenge becomes associated with positive feelings and motivation.



### Engagement

Actively engaging with a task creates focus, allows children to try out different ideas, and gives them opportunities to communicate with others to achieve their goal.



### Meaning

Being able to relate a new game or experience to something they've done before builds neural connections and helps them expand on previous knowledge to overcome new challenges.



### Iteration

Iteration means testing possibilities, noting the outcome and refining ideas until they work; whether that's rebuilding a wobbly tower of blocks until it stands upright or designing a new space shuttle forty years later.



### Social interaction

Understanding other points of view, learning to collaborate, and communicate their own ideas is essential – particularly when it comes to the workplace.

It's clear that learning through free and imaginative play creates future success stories; secure, well-rounded employees who are confident in their abilities, sophisticated communicators, able to make positive connections between different scenarios, determined in the face of challenges and able to focus fully on a given task.

*The American Association of Paediatrics reports, 'Psychologists have studied groups of adults and discovered that those who were encouraged to engage in free 'playful play' as a group were able to develop more creative and innovative solutions to challenges.'*

The future of industry depends on our future adults, and the best place for them right now is in the back garden, making a train out of cardboard.

## The importance of engaging imagination

Committed to developing young minds, the Institute of Imagination is well placed to define what's needed for future business success. The top three skills regarded by the World Bank as essential for economic success are: Problem Solving, Critical Thinking and Creativity.

The list also includes 'Coordinating with Others' and 'Cognitive Flexibility'. 'The message emerging... globally through the World Bank, was not only an emphasis on play but also the importance on gaining a 'breadth of skills,' explains Tom Doust.

*'As younger generations enter the workplace, the need to be multiply skilled is becoming more apparent with digital skills underpinning everything.'*

Traditional education may have focused on a narrow band of skills, prioritising literacy and numeracy at an increasingly early age, 'but while core skills are of course still important, the goalposts are shifting for how we will live and work in the future.' Doust continues, 'at the Institute of Imagination, we understand the need for children, young people and all generations to embrace a new skills agenda where a breadth of skills will be needed in order to build resilience in a rapidly changing world. We place the importance of free play and open-ended tasks at the heart of our activities.'

**The Institute of Imagination believes that learning through play is 'a natural vehicle for children to practice original thinking and, ultimately, to provide an environment that enables the power of humanity's unique ability to imagine.'**



## Offering experiences

Children can't learn fully without experiencing ideas and challenges for themselves. 'At the Institute of Imagination, we often get asked 'how do you teach creativity or problem solving?'' agrees Tom Doust. 'Our immediate answer is that these skills are gained through experiences. 'The Imagination Lab, a 3,000-sq. ft. flexible learning environment, provides an accessible and gender-neutral space that is welcoming, flexible, and encourages free play by asking the child what direction they want to take.

*'We set up stations of activity that have prompts and examples of projects that act as a starting point for children to engage in and apply their ideas to,' explains Doust. 'An example might be a motorised drawing bot that can be built using pens, cups, a hobby motor and a battery pack. The bot can take many forms and we do not tell the children what that form should or has to be. The most interesting and innovative outcomes come from allowing the freedom to play and experiment with the materials provided, with idea as a starting point.'*

Unlike other museums or learning spaces, and even at events with up to 20 different activities, the IOI does not provide a map or route; instead, they allow children to explore what interests them at their own pace. 'We feel this is a vital ingredient for free play', adds Doust. 'Children, as learners, construct and build knowledge through powerful experiences of making in these freer environments.'

Interestingly, one of the most popular and well-used materials that the IOI offers is cardboard.



## Work and play

Play is a context within which children develop emotional skills; especially emotion regulation and emotion understanding, both necessary for successful interpersonal relationships. A recent study found that free play at age 5 related to greater emotion, expression, understanding and improvements in managing emotions a year later. However, if no time is made for free play, children are likely to grow up entirely reliant on the involvement of adults, less able to think for themselves and less emotionally and physically confident in their own abilities.

*'Ill-preparedness for adulthood arising from a reduction in play may carry economic and societal costs.' Says the All Parliamentary Report on Play (2015).*

Play is key to the development of 'social employability skills', defined by Universities UK/CBI as team working; communication; critical thinking; creativity; innovation; enterprise and problem-solving. (Universities UK & CBI, 2009, 'Future Fit preparing graduates for the world of work')

*'Play is also related to creativity in the sense that it involves divergent thinking, symbol substitution, positive affect, problem solving skills and emotion regulation.'*

And, when schools are not offering the time for free play, ironically, in a bid to produce the workplace's future competitors, it falls to parents to make sure children have the opportunity to grow and develop fully; for children's own sake, as well as their future employers'.

## What we can learn

Interestingly, while free play is under-prioritised in the UK, countries with a reputation for business success are already changing direction.

The lack of 'soft' empathy skills and problem-solving abilities in graduates has been noted by top employers globally, and countries including China are responding by reducing academic demands in favour of more undirected time in school, in a bid to boost creativity and rounded, holistic development.

Whilst scoring highly in tests, there is a significant rise in depression and anxiety in Chinese school-children, which has led to the new guidelines for education reform, including the edict that primary schools may no longer set any form of written homework for younger students. In South Korea, new, less academically-driven curriculums are being introduced, with a greater emphasis on creative thinking. Indeed, the UK now lags behind, despite a rise in reported anxiety and depression amongst children and adolescents here too. Until our system begins to value imagination as much as formal education, it's up to us to ensure our children are given the very best start in life, to best prepare them for a future workplace that none of us can yet imagine.



# petits Filous

## Section 4: How to support free play

*'It is a happy talent to know how to play.'*

Ralph Waldo Emerson, philosopher, poet, essayist



It's very clear that free play is essential for growing happy, healthy, curious children. It's also hard, sometimes, to know how to create opportunities for free play, uninfluenced by adults, where the kids get to make the rules.

Reasons why modern parents might step in to end free play, or get involved, include:

## Safety

There's no garden so kids are playing in the road or around parked cars, they're too young to head off to the park, and there's busy streets around you.

## Time

With two working parents and a packed schedule, it's easy to find there's no free time between breakfast and bedtime. When they've completed school, after-school clubs or music lessons, there are no spare minutes left and weekends are full of family errands, parties, sports, ballet and visits to relatives.

**Jenny, mum of Jack, 3 and Annie, 6:**

'Chores, housework, study time, commutes, all these things hold me back from giving them time for free play! I allow my younger one to free play more because he does not have homework and pressure from school to do study at home – there's a certain level of expectation.'



## Guilt

When you work full time, you're always wishing there were more hours in the day. Parents tend to plan activities they can do with their children, play together, and focus on quality time, rather than unstructured time.

## School

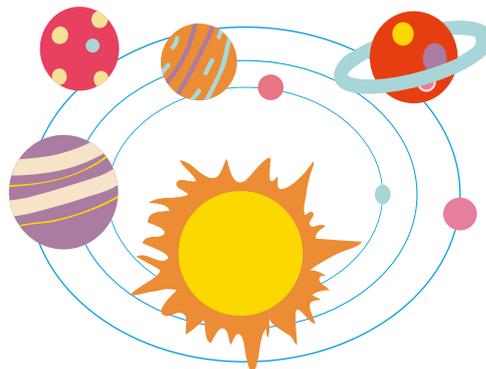
With homework, after-school activities and art projects that need supervision, children can end up devoting all their time to school-related activities, with parents involved every step of the way.

## Technology

Modern children are surrounded by tech, from iPads to TV to smartphones and X-boxes. When they're used to watching Youtube or playing online, it's hard to persuade them to use their imaginations instead.

**James, dad of Ben, 5:**

'Technology has infiltrated our society and I find that iPads and phones as well as video games are an obstacle. We also lack time and space to fit free play in the schedule. During the week, kids come back with homework, we have long commutes and so we don't give free play the time of day as much as we should. Also, I don't think school philosophy is built around free play.'



But, it is possible. Instead of feeling guilty for turning off the TV and letting the children amuse themselves, parents can rest assured that while they're putting a wash on (or their feet up), the children are learning, growing, and developing through the chance to play alone.

And, if they still need supervision, that's fine too; as long as parents resist the temptation to direct the game, with phrases such as 'have you thought of trying...' or 'a better way to do it is...'. It's important children learn for themselves what works, and have their innate inventiveness and imagination encouraged, rather than stifled by parental ideas of the 'right' way to play.

When parents do step back and encourage free play, over 78% report a positive impact on their children. Well over half (59%) of parents surveyed by Petits Filous say they are more creative, while other bonuses include innovative thinking (40%), better cognition, (37%) and problem solving (36%).

'Society is a barrier – people who jump in and interfere with the games are detrimental to free play. Then, it is no longer child-led. I would not join unless my kids ask me to and even then, I only do what they want me to so as not to interfere with their creativity. My daughter is unschooled and I find it hard to find an educator or tutor who knows and understands the value of free play.'

**Laura, mum of Sophie, 3**



## Making and playing

Of course, simply tipping children off the sofa and telling them to 'play' may not have the desired result.

Without parents directing and influencing, though, kids of all ages need materials to work with, whether that's dressing up clothes, blocks, or the most useful of all — cardboard. 'It is making a comeback in many ways,' observes The Institute of Imagination's Director of Experience and Learning Tom Doust, 'from giving a secondary use for packaging in response to the boom in online shopping, through to computer companies looking to fuse the digital with a physical experience.'

For the Institute of Imagination, cardboard is 'treasure', Tom says. 'It's a material that can be converted into any object to help facilitate a free play environment.' Furthermore, bringing a playful environment to life helps a child to role play and perceive scenarios that don't yet exist – and the Institute of Imagination has some impressive examples.

*'In 2012, a short documentary film was released featuring a cardboard arcade created by Caine, a 12-year-old boy in his father's used-auto parts store in East Los Angeles,' Tom explains.*

*'The film went viral and highlighted how free play and creativity can lead to a range of skills from creative thinking, inventiveness and entrepreneur-ship'.*

This single film inspired the formation of The Imagination Foundation - a non-for-profit which runs a global Cardboard Challenge programme with events taking place in over 40 countries annually.



## The joy of cardboard

Petits Filous is truly committed to ensuring free play is a much more regular part of every child's life; they recognise that a little less structure and a lot more play is crucial for helping kids learn more about the world and themselves.

And, imaginative play isn't just crucial for our children, but also for our collective future; economic, creative, analytical and, of course, innovative. That's why Petits Filous are pledging to both champion and facilitate free, imaginative play in the UK.

To support this and help parents across the UK encourage their children to play freely every day, Petits Filous is partnering with Amazon Pantry to transform every cardboard box into an opportunity to play. The collaboration, which will span July and August of this year, will see 200,000 Amazon Pantry boxes sent out to consumers with inspiring, play-promoting ideas created by Petits Filous.

Further bringing the partnership to life are four new Amazon Alexa skills. As of July, caregivers and children need only ask Alexa to 'open Petits Filous' to enjoy four fun mini challenges; enabling their little rascals to explore pirate ships, enchanted castles and outer-space!

What's more, Petits Filous have also produced 28 million fromage frais pots with free play ideas printed on the underside of each label. The playful pots - coupled with an imagination-firing TV campaign - will work together to mobilise parents, grandparents and carers alike to Peel, Lick and Play Free this summer! Who better than those who grew-up without the trappings of tablets and screentime to point our little rascals in the right direction about how to make the most of this precious time to play free.

The ideas, skills and pots seek to inspire UK parents and caregivers to pause before recycling a crucial aid to their children's imaginative play and development; the humble cardboard box.

The partnership is a reminder that free, imaginative play doesn't need to be expensive...in fact, with just a simple cardboard box and some empty pots, children can build a...

-  Jet plane
-  Pirate ship
-  Rocket
-  Racecar
-  Castle
-  Space helmet

Or, anything else that their imagination can come up with! For smaller children, parents can help with construction then release them to fly free though space, or win the race, all on their own.



Petits Filous' survey found that, for children enjoying free play, 54% most enjoyed being creative with cardboard boxes and packaging, 54% also enjoyed make believe, 52% were happy to use their imagination to invent games and stories, and the most popular imaginary game was 'dinosaurs' (26%) followed by just over 1/5 who made exploring space a priority. Interestingly, a huge 75% chose cardboard and other packaging as their favourite objects to incorporate into free play. Meanwhile, 43% liked to build cars or rockets. Almost a third crafted space helmets and 35% constructed houses and forts out of cardboard boxes.

**When the Institute of Imagination introduced cardboard, says Tim Doust, 'the results were phenomenal. By allowing free play with a simple, everyday material, we saw children construct their own cardboard city collaboratively.'**

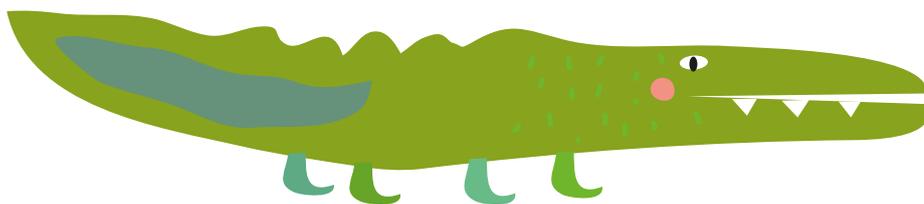
Children joined-up with each other to work on the building, he adds,

*'and they shared tools and ideas. By playing freely, they explored engineering, ideation, problem solving, collaboration, design and materiality.'*

But as far as they know, they're just having fun.

*'I see her thinking freely and I can see that it makes her happy. I also see her learn how to communicate at the park – I see her say sorry and know when to say it, which many kids just don't do unless they are told to. I think imagination is very important for children's education. I grew up in a very structured and strict environment which means that now, I struggle to do things freely. When I have to think by myself or for myself, I have problems.'*

**Sora, mother of Rio, 3 and Lily, 5**



## What children want

According to the Play England report, *Free Play in Early Childhood*, we seldom ask children what they really want when it comes to play, whether that's about the environment or the materials.

*'When they have been asked, children have reported that friendships, opportunities for play and choices within their play are vital to them.'*

*'Children in early years settings enjoy play and would like more choice in what they do, and when they play, particularly in relation to outdoor play.'*

It recommends that while adults are obviously responsible for storing and providing play materials,

*'in order to support children's exploration in play, a wide range of materials should be made available, including those that are familiar, novel, natural and open-ended.'*

When it comes to nurturing imagination, it seems, the best thing parents can do is be available when needed to help construct, keep an eye on safety, and provide the materials - then step back and let the children do the rest.





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**If you would like to find out more about  
The Future of Imagination Report or  
Petits Filous' pledge to support, advocate  
for and facilitate free, imaginative play  
then please visit the Petits Filous website.**

**www.petitsfilous.co.uk**

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<sup>1</sup> <http://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=168E2808-9ED4-5A5E-19E43EA2A731A4ED>  
<sup>2</sup> <http://news.cornell.edu/stories/2006/03/slow-insidious-soil-erosion-threatens-human-health-and-welfare>  
<sup>3</sup> <http://advances.sciencemag.org/content/2/2/e1500323/tab-pdf>  
<sup>4</sup> <http://news.gallup.com/poll/1597/confidence-institutions.aspx>  
<sup>5</sup> [http://news.gallup.com/reports/199961/7.aspx?utm\\_source=article&utm\\_content=daily-employee-engagement#](http://news.gallup.com/reports/199961/7.aspx?utm_source=article&utm_content=daily-employee-engagement#)  
<sup>6</sup> <http://www.eng.ox.ac.uk/about/news/new-study-shows-nearly-half-of-us-jobs-at-risk-of-computerisation>