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Editorial

Loose parts and flexible thinking: getting hold of loose parts outdoors

Jan White

This issue of the Early Education journal links three key ideas: loose parts, flexibility and thinking. The recent growth of interest in the concept of 'loose parts' in early childhood education (ECE) foretells exciting times for early years pedagogy, particularly in play and learning outdoors. Developing as part of landscape architecture research and practice during the 1930-40s, loose parts were a key element of the Adventure Playground movement driven by landscape architects and social activists Professor Carl Sorenson and Lady Allen of Hurtwood. As a result, well developed thinking and practice has emerged in the field of Playwork (Chilton, 2013). More recently, the Forest School movement has promoted the loose parts concept, encouraged by the obvious and abundant supplies of loose materials in woodlands and where child-led play is at forefront of the approach. Two useful toolkits have recently been published as free online downloads (Leichter-Saxby & Law, 2015; Casey & Robertson, 2016).

As an idea spreads and takes hold, there is a danger that the depth of thinking and understanding that a powerful idea has the possibility of generating, is missed or lost. With child-led enquiry, play and agency at its heart, 'loose parts' and the range of valuable thinking this concept brings with it has the potential to cause a paradigm shift in educational and pedagogic approach. Digging into what 'loose parts' and 'variables' actually mean and can do, is critical if we are to make the most of this important idea.

Situated within a children's rights agenda, getting hold of this idea takes us on a journey: from loose, mobile objects to open-ended enquiry, to flexible environments, and on into flexible and creative behaviour and thinking, and the ever-increasing flexibility of thought that this way of working has the power to generate. Flexible, responsive materials and flexible, responsive environments, coupled with attentive observation and an ongoing effort to work on expanding our comfort zone (becoming comfortable with messiness, change, risk

etc), lead towards children being in control of their play, their learning and their lives, and towards creative, critical and innovative thinking, now and into their futures (Harford, 2016).

This journal introduces four aspects of loose parts thinking and practices. Pedagogue Ann Thompson explores loose parts and variables in action in the garden at Sandfield Natural Play Centre, describing the wealth of shared thinking and learning that has developed over time as a result of enabling children to work with them. She broaches the issue of how working with these ideas requires learning to embrace looseness, reaching into all parts of practice as well as provision.

Julie Mountain then brings a landscape architect's perspective, where loose parts can allow children themselves to modify, design and create their own play and learning environments – acting as authors rather than merely being readers of a predetermined landscape. She focuses upon how loose parts enable thinking with the body: embodied experiences through active, full-bodied play that enhances awareness of one's own body as well as deeper learning.

In the early stages of her PhD, Menna Godfrey has been troubling the theory of loose parts by reviewing what Nicholson actually said, squaring this with her scientific understanding of 'variables' and asking what this really means for a deeply child-centred pedagogy. The account of the evolution of a wet area in the small outdoor garden at Quackers Playgroup tells a remarkable tale of children in charge of their own learning with thoughtful and courageous adults.

Building upon this wonderful story, outdoor play researcher, author and advocate Jan White explores the consequences of 'looseness' – examining how working

with loose parts and variables supports children's thinking and the development of flexible thinking itself, with great implications for empowerment, creativity, innovation and thinking outside the box.



Key messages from this journal issue are that young children are indeed natural scientists; that it is the cheap, everyday stuff of real life that provides the best 'stuff' in a generous environment; it is in the outdoors that young children are

able to investigate what matters to them in the most effective and satisfying way; and that it is attentive, attuned, and committed adults who can best support and empower our young researchers. We hope that readers of this journal will share our excitement with the potential of loose parts, looseness and flexibility.

Jan White is an Associate of Early Education and a leading thinker and writer on outdoor play and provision in early childhood education.

References

- Casey, T. & Robertson, J. (2016). Loose Parts Play: a toolkit. Accessed 25 May 2017, from www.hub.careinspectorate.com/media/405223/loose-parts-play-toolkit.pdf
- Chilton, T. (2013). Adventure Playgrounds: a brief history. Accessed 25 May 2017, www.fairplayforchildren.org/pdf/1397922953.pdf
- Harford, T. (2016). *Messy: how to be creative and resilient in a tidy-minded world*. London: Little, Brown.
- Leichter-Saxby, M. & Law, S. (2015). *Loose Parts Manual: the DIY guide to creating a playground in a box*. Accessed 25 May 2017, from www.abcee.org/sites/abcee.org/files/Loose%20parts%20manual.pdf

Loose parts at work: how loose parts and variables are essential components providing an abundance of learning opportunities in the outdoor environment at Sandfield Natural Play Centre.

Ann Thompson

The outdoor play environment and available resources

The outdoor play environment for 3- to 5-year olds at Sandfield Natural Play Centre comprises over an acre of walled garden and five acres of ancient woodland. The garden has a variety of trees to climb, grass to run on, mud to play with, puddles to splash in and undulating terrain to navigate, including a number of earth mounds with a more challenging gradient. The children have a very large sandpit in which to dig deeply and create on a small or large scale, horizontal tree trunks to balance on and jump over and a tyre swing to push, pull, rotate and from which to view the world at different angles. There is an area where children are involved in the processes of planting, growing and harvesting herbs, fruit and vegetables. As well as learning where food originates, they are able to use many of the natural materials, such as seeds, windfall apples and leaves, creatively in their play. There is access to running tap water that can be carried to where it is required and a hosepipe for when a large supply is needed to create a mud bath or to spray into the air on a sunny day, in the hope of making a miniature rainbow appear. A number of differently sized areas have been created to sit, talk, relax or share books. A smooth wall is used for mark-making, drawing and writing with chalks and is large enough for many children to work alongside each other

and talk about their creations. The low level twisted branches of well-established rhododendron trees provide an intricate frame for climbing, dangling or perching.

This natural learning environment is enhanced with a wealth of loose parts to find, bury, manipulate, combine, sort and use imaginatively to represent something else. These resources, which include natural materials such as sticks, stones, branches, shells, flowers, pine cones and conkers, are used endlessly in children's free play and can also be used in maths activities and transient art sessions to make pictures, patterns and 3D sculptures. There are also crates, variously sized planks of wood, tyres and wooden blocks for construction projects. Pots, pans, teapots, jugs, buckets, baskets and utensils are used in the mud kitchen. Water play equipment comprises guttering, brushes, rollers, stainless steel containers, exotic metal teapots and watering cans. Picnic blankets, saris and plastic sheeting, garden canes and branches are used to make dens, shelters, bird hides, fairy houses and tunnels. Bikes, scooters, wheelbarrows and carts are also an important part of the provision and are frequently used to transport loose parts to where they are needed. The woodland is accessed through a garden gate during supervised, exploratory walks and provides a source of materials for loose parts play.

Variables such as clouds, shadows, rainfall, frost, snow, ice and wind provide a generous variety of multisensory learning experiences throughout the year. They support scientific enquiry including thinking about change and cause and effect, for example, when water freezes in cold weather and snow melts when taken indoors. Rainfall produces puddles that provide many learning opportunities, including the challenges of creating new puddles by digging holes, joining up puddles by digging a connecting gully, building bridges to traverse a large puddle or creating concentric circles by dropping a stone in a puddle. Observing reflections mirrored in a puddle may stimulate talk about faces, tree branches or passing clouds. When a large acrylic mirror is placed on the ground, the children can paint the cloud reflections with white paint on the surface of the mirror. This encourages even reluctant mark-makers to pick up a brush. The children observe the clouds moving across the mirror, comment on what is happening and wonder why.

This combination of natural landscape, carefully chosen equipment and loose parts is planned for, resourced and restocked in order to encourage the children to explore, discover, think and create. Our curriculum mapping shows that the children are able to access all the areas of learning outlined in the EYFS when they play outdoors, and assessment records show the children



quickly acquire the characteristics of effective learning in this rich, stimulating environment. Discussion of some play experiences will help exemplify the potential learning and flexible thinking afforded by working with loose parts outdoors.

Apple Play

It is September, and beneath the apple trees the ground is littered with windfall apples. A child has brought over a wheelbarrow and encourages his friends to join him in filling it to the brim. The apple load is heavy and two children are needed to stabilise the contents as it is pushed over uneven ground to the Apple Store. A table, some shelving and a collection of differently sized baskets and buckets create the setting for sorting the apples for display in the shop. The apples that show signs of decay are tossed onto the compost heap. A child lines his apples along the edge of a shelf, another meticulously orders her apples by size, while others count as they fill their baskets. Children negotiate the pricing of the apples and decide who will be selling the apples and who will be the discerning customer choosing the size and quantity to be purchased. Once transactions

are completed the apples are transported to different destinations, some to be rolled down a slope, others are taken to the mud kitchen. Here they are soon bobbing in a large pot of water combined with a variety of other ingredients that include leaves, stones, sticks and dandelions foraged from the garden and gathered during woodland walks. The recipes can vary depending on the creative choices of the young chefs, but stewed apple is usually on the menu at this time of year. A bucket balance is tied to a nearby post in the Apple Store and soon the children are exploring how it works. There are opportunities to use mathematical language, as children observe what happens when the apples are added to or taken from the buckets.

Later in the day, with the addition of a large wooden dice a practitioner uses the apples and baskets to invite the children to play a turn-taking game in which children are encouraged to match the number of apples in their basket to the number of spots on the dice. The activity is easily differentiated for children who are ready to use their numeral recognition to play the game by using a

dice with numbers 1-6. For those who are practicing adding two numbers together, two spotted dice offer them the opportunity to develop this skill. Later in the week a stepladder is used to gather apples from the trees, which are then used by the children to make delicious apple crumble.

The children's new learning is embedded and extended during periods of child-led play. On subsequent days, children are observed independently playing dice games with a variety of resources, creating mud kitchen apple crumble recipes and using the bucket balance to weigh a variety of materials such as stones, sand and water available in the garden. Their vocabulary has expanded and the opportunities for imaginative play and games have increased, as they draw on the experiences afforded by the seasonal availability of windfall apples.

Creative with crates

Crates can be a wonderfully versatile resource in any early years setting, as children find endless uses for them in their construction of dens, bridges and vehicles such as cars, airplanes and trains. They are also used as mobile seating for group gatherings and as tables, cookers and storage units in pop-up, temporary mud kitchens located wherever the children decide to play, whether that is behind a shed, under a tree or inside a den.

During the summer months the children are able to build their own paddling pool. By using single height crates turned upside down and set out in a rectangular pattern, the outer walls of the pool are formed. The challenge for the children is to choose the optimum number of crates to maximise the pool size while utilising a large piece of plastic sheeting which has to be spread over the ground inside the crate enclosure and then tucked over the crates on each of the four sides to create a watertight pool. There is enough depth and space for a group of six to eight children to then explore water for long periods of time as a whole-body experience. There are many opportunities for predicting, estimating, measuring and negotiating during this construction project. The reward is the opportunity to sit on the crates and dip their feet in the water whilst relaxing, talking to their friends and watching the shimmering sunlight and the dappled shadows created by the surrounding trees on the water surface. With the addition of squeeze bottles the play becomes more active and a far wetter experience for all! However, the play can develop and become more diverse with the addition of further



loose parts. Petals, leaves and old CDs floating and reflecting on the surface of the water create a wonderful temporary art installation. A variety of natural materials are explored in a floating and sinking experiment. This extends to making boats and creating a rock pool with the addition of rocks and stones of variable size, small world frogs, fish and other underwater creatures. As the pool is near the sandpit, the children go on to develop a whole scenario of beach holiday play. The opportunities for reading stories with a water theme, writing postcards, making up stories, recounting experiences at the beach and maths activities are endless. By adding a variety of metal bowls and dishes to float on the surface of the water, the children discover that water poured from jugs or teapots will create differently pitched sounds depending on the size of the metal container and the height the water is poured from. An unexpected downpour of rain suddenly enhances this play, creating even more interesting sounds as it hits the metal containers.

How playing with loose parts affords opportunities for sustained shared thinking

Play with loose parts affords many opportunities for developing children's thinking as they engage with the resources in the outdoor environment. The children will often observe cause and effect during their explorations and can be supported to think about and describe their own theories and predictions. Children are encouraged to listen to each other's ideas and are extremely motivated when enabled to follow their own interests. Recalling the events of the week with their parents, when looking at photographs that are sent home, allows the children to recount their play experiences, begin to sequence events from memory and make links with past experiences. Reflecting on what they have learnt and how

projects and learning might develop further involves the children in deeper thinking that helps them to understand how they learn. This introduction to metacognition helps clarify thinking and allows the children to transfer their skills to new situations. Practitioners at Sandfield have become skilled at using open-ended questions during their interactions with children and may use running commentaries to extend the vocabulary and understanding of young children and those with language delay as they observe them playing. Adults share picture books and non-fiction books related to the children's interests and give time for the children to talk about their content in small groups. Soon this type of shared talking and thinking is heard during episodes of child-initiated play which is often independent of adult support or direction. In this way children learn effectively, are confident, capable and ready to enter a school setting and thrive as they continue their lifelong learning journey.

Key components that are conducive to deeper learning using loose parts in a natural environment

- ▶ Practitioners at Sandfield enjoy being outdoors in all weathers and actively engage as play partners with the children when required. They have retained their sense of wonder and willingly explore the natural environment with the children. They are very sensitive to times when they can observe, encourage, comment or teach in the moment as opportunities naturally arise during the course of a play episode.
- ▶ Children are trusted to learn through their own independent play and the exploration of schematic thinking that is facilitated by open ended resources. They are given ample time to develop their own ideas during play and return to themes and repeat actions to

embed learning. "Slowness" is valued and allows for times of relaxation, pondering, day-dreaming and deep absorption, when adult interaction may not be needed.

- ▶ Staff work as a team, engage in reflective practices and are committed to continuous improvement in order to provide outstanding provision. Peer observations highlight opportunities for sustained shared thinking which extends children's thinking by adults modelling, challenging, evaluating and reflecting with the children. New members of staff are mentored through training and support to become comfortable and knowledgeable about the challenge and risk that enhances learning in an outdoor natural environment.
- ▶ Regular outdoor "stay and play" sessions allow parents to engage with their children in the natural environment and, in dialogue with the practitioners, have a growing understanding of how their children learn outdoors. They have opportunities to play alongside their children with loose materials and variables in order to understand how children can develop their creativity through the open-ended nature of the resources. Parents are encouraged to collect loose parts for their children to play with at home, such as boxes for construction and imaginary play. Also home learning bags include loose materials such as conkers or shells and a guide for using them to develop numeracy skills in the home environment. Parent workshops held through the year are used to share our philosophy, practice and ideas for home learning.

Sharing best practice

We support other settings to develop their provision by maximising their children's access to outdoor play and the use of loose parts. A restricted budget could be the driving force for providing more loose parts in early years settings. However, we hope that this will happen because more early years practitioners gain the knowledge that all children are naturally creative and learn rapidly when they are given the opportunity to work with loose parts outdoors!

Ann Thompson mentors the staff team and university students on placement at Sandfield Natural Play Centre in Knowsley. With many years teaching experience, she also supports the development of practice as an early years consultant.

Loose parts and physicality: how children think with their minds and their bodies

Julie Mountain

A landscape architect's perspective

As an early childhood playspace designer and peripatetic provider of CPD for early years practitioners, loose parts play a crucial role in my ability to help settings understand the special nature of outdoor play - not least because KFC playspaces (kit, fence, carpet) tend not to fold into the back of a car for transportation. Repeated observations demonstrate that compared to fixed - and frequently expensive - play equipment, loose parts provide a richer, more authentic exploration of the world for children and adult learners alike.

Whilst Simon Nicholson was not the first to use the phrase "loose parts", his 1971 theory was the first time it was conceptualised and placed within the context that we now understand it: objects that children and adults can manipulate to design, shape, experience and play with their environment. The term "variables" is sometimes heard in combination with "loose parts" and it is worth examining what we mean by that term, too. As a landscape designer, I understand "variables" to be the mutable elements we have less personal control over: how the weather effects our emotions and the quality of the environment; the backdrop of external sounds filtering into our lives; the actions and reactions of other people; the words and noises eddying around us; the unpredictable movements of people and animals; light levels changing throughout the day and the year. These variables could be affected by our own actions, but in general they influence our thoughts and behaviours.

Thinking with mind and body

The roots of our modern understanding of loose parts and variables lie not in the education sector, but in the urban design sector. Simon Nicholson was a landscape architect, and his interest in loose parts stemmed from a frustration with the perceived arrogance of the design sector in excluding "civilians" from the decision making process; the opening paragraphs

of *How NOT to cheat children* make this clear, as he describes the prevailing attitude of the time and sets out a manifesto for change. In short, it appeared that only "experts" had any contribution to make to the design of the spaces and places people lived in. Dr Tony Gibson, then of Nottingham University, was similarly exasperated with the inability of "creatives" to engage with the people they were creating for and in the mid-1970s devised the "Planning for Real" process, a hands-on modelling technique that allowed residents to literally move their neighbourhood around using large-scale plans and 3D models of the buildings and open spaces. In effect, these table-top models were "loose parts" and being able to move, remove, expand and alter them (including gluing them together or chopping them up) to see and imagine what the effects of change might be gave residents the power to help solve previously intractable environmental problems.

This is important because the early beginnings of the loose parts concept demonstrate perhaps its most powerful and egalitarian quality: to enable anyone to engage in critical and complex thinking. In the 1990s (and with permission from Gibson's Neighbourhood Initiatives Foundation) I expanded the "Planning for Real" idea into a 1:1 scale school grounds design technique for children and teachers. I called it "Planning for Real 'for Real'" and curated a collection of large loose parts, which children manipulated to represent the features and environmental changes they wanted to see in their school grounds. For example: carpet offcuts become pathways; cable reels become performance stages or tables or climbing equipment; patio umbrellas become trees. Because they can place the loose parts anywhere, and move them freely, young children work as a team to create a space they can all understand, relate to and love. This is simply not possible using the traditional design tools of plans and elevations. Using their bodies and the loose parts enables older children to express

creative ideas quickly and directly - and to evaluate and change them within moments, using newly learned design vocabulary to further articulate ideas.

We see precisely this with early years loose parts play. Children move and manipulate the objects, combine them, share them, test them and express their thoughts and impulses in the way they experiment. The connection between physical and neurological development is well documented and understood, however as children move through the school system today, opportunities to use their bodies to test ideas and to express creativity become fewer and fewer. Yet we know that when children are fully engaged with their whole bodies and their minds, communication and understanding both come more easily.

In the 1960s and 1970s, even mathematicians saw the value of loose parts in logical thinking; the Nuffield Foundation named its ground-breaking maths curriculum *I do and I understand* and highlighted the difference in children's understanding of maths concepts when they were able to engage in hands-on learning with loose parts: "To achieve understanding, young children cannot go straight to abstractions - they need to handle things ("apparatus" is too grand a word for at least some of the equipment concerned - conkers, beads, scales, globes and so on)" (Nuffield Foundation, 1967). This curriculum became known as the "discovery" method and it makes frequent reference to Piaget's work on active, experiential learning.

I use this concept extensively in devising and delivering action research-based early years outdoor maths CPD. The practical elements of these courses make full use of my own collection of transportable loose parts, with practitioners using golf balls, cutlery trays, corks, springs, plastic piping and a whole host of natural materials and den making items to develop playful ways to introduce and reinforce maths concepts. Because

the items are commonplace, easily stored, cheap (or free) to collect and provided in abundance, practitioners are able to test their ideas back in their own settings. Their evaluations suggest that when children have free access to abundant loose parts outdoors, they:

- ▶ Use more, and richer mathematical language to describe their play, eg: over/under; apart/together; two/pair; long/short; total; comparatives and superlatives (big, bigger, biggest).
- ▶ Incorporate mathematical concepts into creative and imaginative play, such as Ten Little Ducks; *Mrs Mopple's Washing Line*; using rulers, tape measures, trundle wheels and sticks to estimate and measure distances.
- ▶ Develop number sense more readily, eg using a variety of loose parts to explore the "fourness" of four.
- ▶ Explore shape and position through play, including creating loose parts mosaics on the ground, and ordering similar objects (like bottle lids) in size, shape or colour order.
- ▶ Use mathematical ideas and purposeful maths language in dramatic and construction play, which are generally agreed to promote higher order thinking skills and problem solving.

(including Jasmine Pasch and me) to establish the most effective approaches for their cohort of children (and parents), their staff and of course the outdoor spaces they accessed daily.

With little or no capital funding available to enable major changes to outdoors, participants were driven to think creatively about the spaces and resources they already possessed, and reflect upon whether the way outdoor play was currently managed and supported was preventing or promoting sustained physical activity. Almost inevitably, we found ourselves noting the variety and depth of inventive play undertaken by children when using loose parts – but additionally, we discovered that with minimal adult input, children could be encouraged to incorporate physical activity into their play using newly introduced and existing loose parts. Loose parts are often thought of as small and plentiful and perfect for encouraging fine motor skills. We approached them from a different angle, examining their role in supporting proprioception (body awareness) and vestibular (balance) movements, creating resources that would stimulate large muscle groups and boost physical and emotional risk taking.

The programme cohort included nursery and reception class teachers, pre-school and nursery practitioners and childminders. The outcomes from the childminders' action research projects in particular suggested using loose parts to promote physical competency and confidence. Many children in Newham live in flats or in houses with little or no outdoor space; many are in houses of multiple occupation and have little opportunity for freely chosen, autonomous, "big" movement play, indoors or out. Working together, and using initial observations and audits as the baseline, our childminders discussed simple, cost effective strategies that would have an immediate impact on levels of physical activity – and importantly, could be sustained. Jasmine helped them think about using simple and readily sourced loose parts to stimulate strong, supple and sustained movements.

In their final evaluations, the childminder group presented innovative new resources and techniques, alongside tried and tested approaches:

- ▶ Allow much longer for walking journeys, so children can: ride a scooter; push a dolls' pram; climb over street furniture; peer into windows and doorways; avoid stepping on the cracks in the pavement. Children's lives are structured, supervised and often focused on the need for adults to be somewhere else. By slowing down, introducing props and using journeys as part of the intent, not just as a means to an end, activity levels and wellbeing increased.
- ▶ Relaxing self-imposed rules on how children are able to use gardens and parks for play. For example: giving children responsibility for clearing up the garden at the end of the day, but allowing them to fully occupy it during play; providing trucks and wheelbarrows so that loose parts can be transported anywhere; encouraging balancing and leaping on low walls, benches and steps; providing wheeled vehicles that allow children to move independently – especially crawling babies, toddlers and children with physical challenges.
- ▶ Curating "grab and go" kits specifically for use in public outdoor spaces. These needed to be lightweight, simple and transportable. Incorporating loose parts demonstrated to childminders that young children's upper body strength and co-ordination could be effectively developed without the use of permanent fixed features such as monkey bars or climbing frames.
- ▶ More frequent visits to larger open spaces, where loose parts such as kites, umbrellas, bubbles, rope, elastics and sticks could be used to promote vigorous full body movements.
- ▶ Being more aware of the sixth and seventh senses - the vestibular system and proprioception, which alongside the five better-known senses make up the base of Williams and Shellenberger's *Pyramid of Learning* (1996). Understanding how the seven senses underpin movement, which in turn underpins cognition, was a critical step in the Newham cohort's ability to plan for a wider range of movements and strength-building activities.
- ▶ Promoting the importance of everyday vigorous, sustained movement to parents and other childminders.

For the remaining project participants, one of the biggest barriers to higher levels of physical activity outdoors was reluctance to allow children to take physical risks. By observing and recording the ways children moved outdoors, and how they naturally dynamically risk assess with



every movement, we were able to begin addressing these fears, not least by placing significantly more confidence in children's own ability to keep themselves safe when using loose parts and interacting with environmental variables.

Planning for physicality and playfulness outdoors

To make the most of the potential of loose parts, there are a number of principles to bear in mind, all of which arise from the shared vision and values for early years outdoor play (White et al, 2004), whose three core statements state:

- ▶ All children have the right to experience and enjoy the essential and special nature of being outdoors.
- ▶ Young children thrive and their minds and bodies develop best when they have free access to stimulating outdoor environments for learning through play and real experiences.
- ▶ Knowledgeable and enthusiastic adults are crucial to unlocking the potential of outdoors.

Indoors, the learning is frequently adult-initiated; outdoors children feel able to explore more freely, and adults appear more willing to allow this. I note that practitioners often feel a need to keep "tidying up" indoors, whilst outdoors is allowed to reflect children's interactions and thought processes throughout the day. In other words, it might look messy, to adult eyes. Exploiting the true potential of loose parts

and variables may mean rethinking not just the resources outdoors, but how you manage it and support the staff who use it.

- ▶ Be generous: provide lots of types of loose parts and an abundance of each kind.
- ▶ Offer fascinating and diverse collections of natural and man-made objects, and allow children to transport and combine them to extend and challenge their thinking.
- ▶ Some loose parts should be heavy and awkward, requiring strength, resilience and co-operation to move them around the space.
- ▶ Enable transportation and combining of loose parts - experimentation is rarely "tidy".
- ▶ Curate loose parts collections, for example, story stones; physical activity kits; mathematical thinking resources or a rainy day kit, so that you are ready when inspiration hits.

A diverse, generous and freely available outdoor space, crammed with potential, enriched with loose parts, and supported by knowledgeable and enthusiastic adults, gives young children the very best opportunity to stretch their bodies and their minds. Outdoors, children explore at their own pace; they communicate readily with one another and with adults; they recognise outdoors as their territory and are keen to occupy every part of it. Open ended resources, loose parts and variables give children the tools and materials to test

References and further reading

- Gutteridge, S. & Legg, J. (2014). *This place is like a building site*. Accessed 25 May 2017, from www.itl.org.uk/resources/results.php?id=643
- Maxwell, L.E., Mitchell M.R. & Evans, G.W. (2008). *Effects of Play Equipment and Loose Parts on Preschool Children's Outdoor Play Behavior: An Observational Study and Design Intervention*. *Children, Youth and Environments*, 18(2):36-63.
- Mountain, J. (2014). *The Little Book of Free and Found*. London: Featherstone Education.
- Mountain, J. (2017). *Outdoors and Active*. London: Early Education.
- Nicholson, S. (1971). *How NOT to cheat children: the theory of loose parts*. *Landscape Architecture (Quarterly)*. 62(2): 30-34.
- Nuffield Foundation (1967). *I do, and I understand*. Nuffield Mathematics Project. London: W&R Chambers.
- Shaw, L.G. (1984). The use of toys and other loose parts on playgrounds for disabled children. *Children's Environments Quarterly*, 1(2), 17-22.
- White, J., Learning through Landscapes & Vision & Values Partnership (2004). *Shared Vision and Values for Outdoor Play in the Early Years*. Accessed 24 May 2017, from www.tinyurl.com/visionvalues
- White, J. (2015). *Every Child a Mover: a practical guide to providing young children with the physical opportunities they need*. London: Early Education.
- White, R. & Stoecklin, V. (1998). *Children's Outdoor Play & Learning Environments: Returning to Nature*. Accessed 24 May 2017, from www.whitehutchinson.com/children/articles/outdoor.shtml
- Williams, M.S. & Shellenberger, S. (1996). *How does your engine run?* New Mexico: TherapyWorks, Inc.

themselves and test the features of the space, establishing a growing understanding of how the world works, and how they might best fit into it. In this way, we help children become thoughtful, adventurous and unembarrassed adults, ready to take risks intellectually, emotionally and physically.

Julie Mountain collaborates with early years settings and families to help them make the most of the unique and special experiences outdoor play can offer, using inventive (and thrifty) design, resourcing and management approaches.

Warning! Researchers at work: practice grounded in loose parts play

Menna Godfrey

To assist a child, we must provide him with an environment which will enable him to develop freely.

Attributed to Maria Montessori – source unknown

What is it that we should assist our children with? Gopnik (2016:16) explains that “childhood is designed to be a period of variability and possibility, exploration and innovation, learning and imagination”, whilst Murray (2017) describes young children as researchers, driven to explore their world, intent on discovering what it is, what they can do with it and how they can leave their mark on it. Through this enquiry, they experience agency and know that their actions have an impact on both the physical world and the individuals around them. Murray (2013) describes four primary research behaviours: exploration, solution seeking, conceptualisation and decision-making based on evidence. Nicholson (1972:8) asserts that: “Children learn most readily and easily in a laboratory-type environment where they can experiment, enjoy and find out things for themselves.”

Our aim should be to assist them with these endeavours, and so enable our young researchers to achieve their own goals. Underpinning our practice is the United Nations Convention on the Rights of the Child (UNCRC, 1989) which declares the rights of all children to an education which develops their personality and abilities (Article 29). In our setting children’s voices are listened to and their opinions are taken account of (Article 12) and as adults we do our utmost to do what is best for the child (Article 3).

As a small preschool playgroup (for children aged 2-4 years old) we have observed children at great length and reached the same conclusions. We recognise that, for children who are safe and feel secure, the environment itself plays an enormous role, opening or closing possibilities for

exploration and deep-level thinking to take place. Our role, we agree, is to plan it carefully; as Rinaldi urges us, we should be aware of the possibilities afforded by the arenas of opportunities we create. Once the environment is ready we, the adults, must ensure that children are given the necessary permission (whether implicit or explicit) to explore in as many ways as they can safely do.

Our observations of children at play, along with consideration of research evidence, help inform our understanding of the type of spaces in which children can become deeply engaged in their research endeavours. Flexible environments that are rich in possibility, through which children can move at will and where they can take ownership, provide exciting and stimulating opportunities for young researchers. Sterile environments, containing only fixed structures, offer children limited opportunities to act and limit the opportunities available for exploration and conceptualisation.

As a community of enquiring adults, we recognised that the most interesting and absorbing play for the children often took place outside when they came across an object that had been overlooked in the previous day’s tidying up. Nature herself provides twigs, blossom or catkins blown from a tree, or a newly opened dandelion, or a puddle of ice-covered water contained by a hollow in the ground. These found items, along with familiar resources available to them, often suggested new ideas to the children about ways of researching. We recognised the inventiveness and creativity that Nicholson described in his “Theory of

Loose Parts” being played out by children in our setting:

In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it (1972:6).

Nicholson describes children’s interactions with the world around them as follows:

There is evidence that all children love to interact with variables, such as materials and shapes; smells and other physical phenomena, such as electricity, magnetism and gravity; media such as gases and fluids; sounds, music, motion; chemical interactions, cooking and fire; and other humans, and animals, plants, words, concepts and ideas. With all these things all children love to play, experiment, discover and invent and have fun (1972:5).

Perhaps Nicholson is using “variables” as a collective noun for physical objects (such as materials and shapes): these are graspable and can be interacted with by the player and they impact on the affordance of the environment positively.

The scientific community describes a variable as any item, factor, or condition that can be controlled or changed. Nicholson’s use of the term appears to be less precise, the materials and shapes themselves may be beyond the control of the player, being themselves fully formed, yet their use in the hands of a free-thinking investigator may be many and varied. Sticks for example come in many sizes and shapes, and in the



hands of the researchers may suggest many possibilities. One minute they can be a gun, the next moment an axe and later still a fishing rod.

The term loose parts is most commonly used amongst early years practitioners to mean moveable objects that offer open-ended play opportunities. They can be repositioned, reoriented and repurposed by the player to suit their own agenda. I would suggest that children play with the variables that Nicholson describes and that they use the moveable loose parts to investigate a wide range of physical phenomena. For example, a child may choose a variety of unexpected containers (such as plastic helmets) to move water, exploring both the way that the fluid behaves and the effects of gravity, as well as the mathematical concept of capacity; full, part full and empty. The greater the variety in the containers provided, the more possibilities for learning.

In the case study that follows I have focused on the use that the children have made of loose parts and variables in our setting garden.

An archaeologist and an elephant

I consider that you can tell a lot about the way that children use an outdoor space by the pathways they create. Our garden is a prime example; muddy paths abound indicating where children race on scooters,

bicycles or on foot, and the grass no longer dares to grow. Worn areas within the willow structures evidence where play has been at its greatest, areas once covered in luscious grass have been repeatedly scuffed by feet, and the bravest tufts of grass peek through only to be worn away as fast as they appear. What a challenge this presents us as the adults who provide the environment! We wanted to provide a quieter space where children could enjoy exploring long grass, a space for play, rest and relaxation. To provide this possibility we extended our garden to enclose a piece of virgin grass, almost untouched by children’s feet, and considered how to place boundary markers to ensure that the area was used differently and that we retained the “green field” nature of the area. With careful positioning of tyres containing sensory planting ensuring that bicycles could not be ridden onto the area, children enjoyed the space and made good use of the available resources.

But, great as all this was to our adult eyes, the children have been at work in the garden and the area has changed beyond recognition, this is the story of an archaeologist and an elephant!

In the late autumn of 2015, we noticed that a small puddle had appeared in the grassed area and children were starting to investigate it, walking in and out (wearing wellington boots) they soon began to create a deeper hole. We knew what would happen, we had seen it before in other areas of the garden; we had to decide how to react. To act could mean to restrict access to the grassed area and thus protect our grass, or to refrain and let the children’s exploration change the landscape. It is important to us as a setting that children feel a sense of ownership: one of our parents commented that, “my daughter feels like she belongs there and takes a kind of ownership of the place”. We agreed that we would let the enjoyment of the puddle continue and would accept that this would change the grass again (we are very low lying and have heavy clay soil which does not drain readily, so for much of the winter there are puddles). Soon we noticed that children were using sticks to probe the depth of the puddle, bringing small plastic boats to float on the puddle, and dropping other objects into the puddle to test whether they would float or sink. Imagine the puddle with no loose parts, no way to investigate it than by simply looking at it, limited opportunities by just walking in and out;

then consider the increased opportunity for discovery with the availability of loose parts.

By December the puddle was deep enough for children to jump into, exploring the effects of gravity on their bodies. They jumped and splashed and giggled, enjoying the sounds and feel of the water and discovering that they had to move cautiously through the ever-deepening puddle since the floor was uneven. The freeze and thaw of the winter, aided by the constant investigation of children lifting the heavy pieces of ice, trampling the frozen grass and yet more puddle jumping resulted in a deeper hole, well above the height of child-sized wellington boots, that could be wallowed in. By the early spring of 2016 the puddle was frequently the site for bridge building: using very large plastic construction pieces or planks and tyres, the children worked co-operatively to build bridges to cross the often shark or crocodile infested waters. The richness of their play and the creativity of building and storytelling were made possible by the variety of loose parts available to them. As the days warmed and summer approached the puddle finally evaporated, revealing bare cracked ground, caked hard and reminiscent of a dried-up water hole. Children became interested in a small rock that was just visible; they soon found plastic spades and garden trowels and began to dig in an effort to get it out. The ground was baked hard and the small implements made little impact. "We need your spade", they said to me. So the adult-sized garden spade was collected from the shed and digging began in earnest. What effort it took, what collaboration, discussion and perseverance. Children demonstrated remarkable persistence as they tried different strategies, and worked out the most effective way of using the adult-sized spade. They took care to ensure that they would not accidentally bump one of their friends with the handle as they gripped it at various points. The rock was finally freed from its muddy prison and moved with the aid of a dolls pram to another part of the garden. Later, for another group of children, it became a dinosaur egg and a whole new episode of play began.

As the summer progressed and the garden was empty for the six-week holiday the grass recovered, and when the children returned the dip was all but covered in grass

(we had resisted the temptation to fill it in with soil and level or re-seed it). On a dry sunny day in October a group of children and one member of staff gathered around the hollow. Despite it being completely dry, the children decided there were fish to be caught and they found willow sticks which became their fishing rods. Children who had attended the setting before the summer break led the way as they first caught fish and then used the same space as a fire on which to cook them. Cardboard boxes were flattened and placed alongside the space; they became a place to rest or sleep much as though there was a camp site with an open fire.



As season followed season and autumn turned to winter, the play in the space continued to be rich and varied and we gave up any thoughts that we might have had about protecting the green grass! Children reveled in the slippery mud and deepening puddle. A new generation dropped objects into the dark depths of the puddle, used pipes to lift water from the puddle onto the grass and created small world watering holes for elephant families. They made discoveries, tested out their emerging theories and had their theories challenged by experience. Spring returned and the puddle dried again; children once again found spades and dug for treasure finding diggers and dinosaurs that had been left in the murky waters.

I conclude with a new image, two children lying on the bare earth, enjoying a place to rest and relax. The aesthetic appeal is very different to the adult eye, but it appears that the experience for the child is just as rich.

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Challenges of loose part play

As they act in and on the world around them children may appear to leave a trail of chaos behind them, yet to the trained eye, items used for a purpose demonstrate where learning has been taking place. As the young researchers explore their environment they find out about the properties of water and the objects they use as props in their play. They find solutions: how can I cross the puddle without getting wet? Children grasp new concepts through repeated experience and make decisions leading to theory generation. There would be no objects to be excavated if nothing had been lost in the mud. This is challenging for many adults and too much disorder may mean that children

cannot see what is available. However, Mays notes that:

Children like disorder and find some invisible order therein, most adults hate it. Children do not in the least mind being dirty. Most adults abhor it. Children find a source of enjoyment in the oddest and most unlikely play material: tin cans, milk bottle tops, broken slates, soil, cinders, firewood, the adult thinks of these things in terms of refuse and rubbish... (1957:5).

Loose parts are an integral part of our flexible environment which we believe assists children to develop freely. They help us to ensure that the children's desire to transform the environment can be met, supporting as Ring (2016) recognises "transformation of thinking" and so providing "new possibilities for action", thus beginning the cycle again.

Menna Godfrey is passionate in her belief that play based pedagogy provides children with the best possible learning opportunities. Menna's MA research investigated children's play in puddles and she continues to research mud play!

References

- Gopnik, A. (2016). *The Gardener and the Carpenter. What the New Science of Child Development Tells Us about the Relationship Between Parents and Children*. London: The Bodley Head.
- Mays, B. (1957). *Adventure in Play*. Eastleigh: Common Threads Publications Ltd.
- Murray, J. (2013). *Decisions based on evidence: young children's research behaviour?* Paper presented to: European Early Childhood Education Research Association (EECERA) 23rd Annual Conference: Values, Culture and Contexts, Tallinn University, Estonia, 28-31 August 2013.
- Murray, J. (2017). *Building Knowledge in Early Childhood Education. Young Children Are Researchers*. Abingdon: Routledge.
- Nicholson, S. (1972). The Theory of Loose Parts – An important principle for design methodology. *Studies in Design Education, Craft and Technology*, 4(2), 5-14.
- Ring, K. (2016). *Paint Clay and Loose Parts, how do these resources support Young Children's Thinking?* Presentation to York Early Education Branch Conference, 26th November 2016

Loose parts and flexible thinking

Jan White

Through extensive observation, Friedrich Froebel arrived at the conviction that the spontaneous impulse of the child to explore and act is the primary mode for learning in early childhood. Through the idea of the kindergarten, he envisioned a fertile environment where harnessing this natural motivation was fundamental for nurturing young children to grow into creative, free-thinking individuals.

Over a hundred years later, again through careful scientific-minded observation, Susan Isaacs recognised that the kinds of materials and resources available to young children, together with the ways they are supported to make use of them, can significantly affect the nature of their actions, experiences, thinking and learning.

Current studies in anthropology, cognitive development and neuroscience provide substantive bodies of evidence that humans have evolved to be especially good at flexible and original thinking, and that it is this flexibility of thinking that underpins our evolutionary success. We have evolved to be able to tackle the "unknown unknowns" (Gopnik, 2016) of variable and unpredictable environments and futures, and have even become able to influence and create our own. This research also provides strong evidence that it is our prolonged and play-filled childhoods that give rise to this remarkable faculty:

We begin with the capacity to learn more effectively and more flexibly about our environment than any other species. This knowledge lets us imagine new environments... and act to change the existing ones. Then we can learn about the unexpected features of the new environment that we have created, and so change that environment once again and so on. (Gopnik, 2009:8)

How does this take place during childhood: how can we nurture children to develop the flexible, creative thinking that then gives rise to the possibility for original and innovative ideas and the ability to solve complex and challenging problems for their futures?

I have been enquiring into the nature and characteristics of an effective and powerful outdoor environment for early childhood for many years. What makes being outdoors rich and full of possibility? What is an enabling and challenging outdoor environment for young children actually like? How can we best harness the special nature of the outdoors to generate deeply creative play and thinking? In my role as an outdoor play consultant, I have been drawing from literature from a variety of academic disciplines combined with observational work in many settings in several countries. It has become apparent that critical components of an enabling environment are the objects, materials and environmental variables available on an ongoing, daily basis across the year. Scholarly and practice-based research indicates that well-developed understanding and use of looseness and variability contributes strongly to the development of flexible higher-order thinking in the children we seek to support and nurture.

In this article, I want to explore some of the links between environmental looseness and the development of flexible thinking:

- ▶ the looseness of open materials
- ▶ the representational possibilities of such openness in resources
- ▶ the power of a generous environment and "junk heap"
- ▶ the looseness and influence of a flexible environment.

The looseness of open materials and interesting stuff

When it comes to play, one never knows what a loose part may become over time. (Leichter-Saxby & Law, 2017)

Open materials (Prescott, 2008) are non-prescribed. The signals and cues in the object or substance respond to the child's current knowledge and needs for action and investigation, rather than being dictated by design for particular responses or uses. With a material such as sand there is no "right way" of using

it, and it can be manipulated in a variety of ways that encourage many different threads of thinking to be explored over time. Versatility is key here: the same item can be used in many different ways offering many uses, and provoking many kinds of play possibilities. With well-selected open and versatile resources, such as cable reels and lengths of plastic downpipe, the same set of equipment can be used in different combinations and for very different purposes. In addition, where materials can be handled and manipulated, are mobile so that they can be moved around, and modifiable so that they can be altered according to the player's ideas and wishes, this adaptability greatly increases the possibilities.

Having copious quantities of an item with high play value adds a further dimension to the richness of play possibility with open materials. Abundance affords and generates different kinds of responses, and you can simply do more with them. For example, tyres can be used as a group of "motorbikes", be piled up or used for obstacle courses. Abundant supplies of shells or twigs can be spread about, "lost" and later foraged, gathered, hoarded and even curated in a museum. Abundance of good resources also supports playing together rather than waiting for turns.

Symbolic use of open non-prescribed resources

Children possess a natural openness to the potential of materials... The goal is to allow children to become fluent with materials – as if materials were a language. (Topal & Gandini, 1999)

Open resources are especially valuable for the development of representational and symbolic thinking. Using one thing to represent another starts at a very young age, and develops alongside language (which is the use of symbols as words) during the second year after birth. The open item acts as what Bruner termed a "transitional object" towards symbolic thought. Loose parts become transitional objects in the context of playing. Children

frequently use open resources and materials during their play to physically “stand in the place” of something else, as a symbolic representation of the thing that is not actually there. The natural development of playing in this capacity is at the heart of sophisticated learned processes such as reading, writing and mathematics, and it is important to note that the phenomenon happens most during self-led pretend play (Taylor, 2008).



In using the item as something else, the child still knows what the item is in the real world, so this phenomenon is known as “dual representation” and it is known to be critical in building the brain’s gradual development towards the use of symbols and eventual symbolic fluency (Medina, 2008). The mental representation then becomes a tool for thinking, reasoning and communicating (such as words in language; letters and written words in writing; numbers and operators in mathematics; drawing in art or design, and so on). Symbols thus give us the capacity to manipulate and play with thoughts, to reason, to communicate and to innovate. We need this thinking for science, engineering and technical innovation just as much as for the arts and languages. Humans are remarkable at “using dual representation to combine symbols to derive layers of meaning... and there is an unbroken line between symbolic reasoning and the ability to create culture” (Medina, 2008:50).

Loose parts naturally occur in playing and not only develop in the individual the capacity to symbolise, but, when shared and involving others, create the transitional space, the to-ing and fro-ing of imaginations, through which meanings and relationships are formed. (Taylor, 2008:45)

A rich and generous environment - looseness in the environment

Margaret McMillan and Susan Isaacs, both great observers of children’s play, understood the value of loose characteristics for a rich ‘treasure chest’ of an environment. McMillan asserted that young children need a junk heap: “a nursery garden must have a free and rich place, a great rubbish heap of stones, and flints, bits of can, and old iron and pots. Here every healthy child will want to go, taking out things of his own choosing to build with” (1919:47). A modern day response to this need seems apparent in the way that mud kitchens have rapidly become mainstream provision in outdoor spaces in education settings across the

UK as well as many home gardens (White & Knowles, 2012).

As you add more features or materials to a unit, you geometrically increase the number of things that can be done with it, and if there are plenty of variables present, the child is more likely to engage in explorative behaviour and innovation. Prescott (2008) noticed that the capacity of play equipment to sustain attention and allow children to play together increased with its complexity, and called this “holding power”. Complexity increases with variety, chance and the number of variables that can change or be manipulated. Such variables can be other children, ideas, forces, fluids or weather as well as mouldable physical objects. Complexity especially comes from the high level of diversity, variability and invitation for interaction that is part of the special nature of the outdoors (White, 2011).

Note that it is necessary for children to manipulate their environment and explore the variables and how they interact with things and (especially) themselves in order to gain felt meanings and create embodied, intuitive intelligence about the phenomenon. Therefore the environment gets messy and the child needs to get messy! Importantly, Nicholson (1971) commented in his “theory of loose parts” that environments should not be clean, static and impossible to play around with.

Flexibility – and how it develops thinking power

Play is remarkably common in mammals and birds, particularly those that live in highly social groups, such as elephants, wolves and dogs, the cat family and many species of crow and parrot. Researching play across humans and other animals allows a biological and evolutionary perspective, and it has become clear that play is extremely important for wellbeing, development, social cohesion and survival (Becoff & Byers,

1998). Amongst recent thinking about what play is and what it does for the players, it is recognised that flexibility is a key outcome. Emerging understanding is that this is one of the central reasons why young animals play, and also an evolutionary explanation for the extended childhoods amongst species that play, particularly in humans (Pellis & Pellis, 2009; Gopnik, 2016).

An environment that has several dimensions of flexibility - open, versatile and adaptable materials in an adaptable space with variable conditions and adult permission, encouragement, guidance and support - is open to manipulation and change by players, and becomes highly conducive to play. Play in such a flexible environment creates further, unexpected opportunities which have been shaped by the children’s own ideas, actions and interactions. Thus, the play itself generates further opportunities for playing

How much the environment responds to the player and how much effect the player can have on the environment has a large impact upon motivation and involvement, so that play is extended and learning is deeper. Plasticity and responsiveness are characteristics that describe how impressionable the setting is (Kirkby, 1989). A plastic environment responds to the players. They are able to control, modify and change it; to make their own spaces and structures; and to experience and make use of the results of their actions. Such a mouldable environment can become a “what if” landscape where children pose their own questions, pursue their enquiries and test their innovations.

In researching open-ended materials in flexible indoor spaces, Broadhead (2004) found that the “whatever you want it to be” places, as they came to be called, promoted more complex social interaction and negotiation, new dimensions of

friendship, and more meaningful and sustained play themes. Significantly, this kind of environment empowers children to be authors rather than simply readers of the educational environment provided (Tovey, 2007).

Combinatorial flexibility – building behavioural responsiveness

The interrelationship between flexibility in the environment and growing flexibility in the child has been much explored in the field of Playwork and this has yielded two valuable areas of thought, briefly introduced here.

Flexible play generates a multitude of new behaviours and builds an array of mental and physical skills. Over time, the child builds up a repertoire of possible responses that have come from a great deal of random exploration and experimentation with things that can be interacted with, manipulated and influenced. This neurological bank becomes particularly valuable for generating innovative sequences of behaviours when dealing with novel situations, quickly and effectively as they arise. Rather like the store of words and phrases that we have accumulated for rapidly generating a sentence in the moment as we converse, what also builds is agility in scanning this library of behavioural possibilities at speed, to construct new behavioural combinations or sequences that may never have been considered or used before – responding to the unexpected and the “unknown unknowns”.

Play trains the animal/child to string bits of behaviour together to form novel solutions to problems requiring restructuring of thought or action... What is acquired through play is not specific information, but a general set towards solving problems that includes both abstraction and combinatorial flexibility [my emphasis]. (Hughes, 2001:136 & 138)

Compound flexibility – accumulating flexible thinking

If an environment offers children plenty of flexibility or adaptability... then that child will develop a sense of flexibility as a person, feeling able and capable of playing more flexibly and within all manner of playful combinations. (Waters, 2005)

The idea of compound flexibility is that flexibility in the play environment leads to increasing flexibility in the child in a continuous feedback cycle, accumulating flexibility of thought and behaviour. Brown

(2003:56-7) explains that the freedom in the play environment produces positive feelings and a sense of achievement, encouraging the development of self-confidence and self-efficacy. With a growing self-image, the child pushes their boundaries through just enough challenge and becomes more comfortable with taking risks, and consequently their reaction to day-to-day problems becomes more varied. They begin to discover new ways of using, manipulating, constructing and representing (that is, playing), creating even more potential in the environment, and they become ever better able to use its full potential. In this way, the flexible environment supports development in the child’s own way and pace, and they move closer to their own developmental potential.



Empowering environments and positive futures

Building flexible thinking and behaviour is extremely important in childhood. Gopnik (2009) suggests that childhood is our research and development phase, whilst adulthood is more about manufacturing and marketing. Without the library of possibilities

that get built through extensive childhood play, we cannot have the imagination, creativity, problem solving and innovative capacities that will provide new paradigms and ways for dealing with our future at all levels. We will need different ways of looking at problems and different perspectives for finding and creating solutions: new boxes to think out of.

Digging into the ideas of loose and flexible materials and settings also allows us as pedagogues to move beyond enabling to “empowering” environments. When children are deeply in control of their world, their own personal development and their lives with others, they can become resilient, capable, confident and self-assured.

Jan White is an Early Education Associate and an advocate for high quality outdoor provision for all children from birth to seven. She is author of *Playing and Learning Outdoors* (Routledge, 2014) and editor of *Outdoor Provision in the Early Years* (Sage, 2011).

References

Becoff, M. & Byers, J.A. (Eds.). (1998). *Animal Play: evolutionary, comparative and ecological perspectives*. Cambridge: Cambridge University Press.

Broadhead, P. (2004). *Early Years Play and Learning: developing skills and cooperation*. London: Routledge.

Brown, F. (Ed.). (2003). *Playwork: theory and practice*. Buckingham: Open University Press.

Gopnik, A. (2009). *The Philosophical Baby*. London: The Bodley Head.

Gopnik, A. (2016). *The Gardener and the Carpenter*. London: The Bodley Head.

Hughes, B. (2001). *Evolutionary Playwork and Reflective Analytic Practice*. Abingdon: Routledge.

Kirkby, M. (1989). Nature as refuge in children’s environments. *Children’s Environments Quarterly*, 6(1):7-12.

Leichter-Saxby, M. & Law, S. (2017). Pop-up adventure play. In J. Almon (Ed.), *Playing it up - With loose parts, playpods and adventure playgrounds*. Annapolis, MD: Alliance for Childhood.

McMillan, M. (1919) *The Nursery School*. London: J. M. Dent & Sons.

Medina, J. (2008). *Brain Rules*. Seattle WA: Pear Press.

Nicholson, S. (1971). How NOT to cheat children: the theory of loose parts. *Landscape Architecture* (Quarterly), 62(2):30-34.

Pellis, S. & Pellis, V. (2009). *The Playful Brain*. Oxford: Oneworld Publications.

Prescott, E. (2008). The Physical environment: a powerful regulator of experience. *Exchange*, March/April, 34-37.

Taylor, C. (2008). Playwork and the theory of loose parts. In F. Brown & C. Taylor (Eds.), *Foundations of Playwork*. Maidenhead: Open University Press.

Topal, C.W. & Gandini, L. (1999). *Beautiful Stuff: learning with found materials*. Worcester, MA: Davis Publications.

Tovey, H. (2007). *Playing Outdoors: spaces and places, risk and challenge*. Maidenhead: Open University Press.

Waters, P. (2005). Free Range. *Nursery World*, January, 8-9.

White, J. (2011). Capturing the difference: the special nature of the outdoors. In J. White (Ed.), *Outdoor Provision in the Early Years*. London: Sage.

White, J. & Knowles, L. (2012). *Making a Mud Kitchen*. Sheffield: Muddy Faces.

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