

Designerly Play and the Mud Pool

Using Designerly Play as a Lens to View Young Children Experiencing Forest School

Kim Olliff-Cooper, Tony Raymond, Cliff Lawler and Kay Stables

This paper reports on the introduction of outdoor learning and Forest School experiences to young children by a Forest School and primary-trained teacher and a secondary Forest School and Design and Technology specialist. Their backgrounds allowed the leaders and the class teachers to develop a deeper understanding of how play can lay the foundations for students to access and feel more engaged in their learning. In addition, they discovered that the activity of designerly play was directly linked to developing the ‘characteristics of effective learning’ such as reflection, meta learning and independence, which are essential basic skills in their own right. Developing these skills gave a direct link to ‘what designers do’ and related aspects of learning, such as creativity. The project reported was the result of setting up and running sessions with pupils aged 5 to 7 years of age in three phases over 18 months in Forest School experiences. The outcomes indicate the success of the project in the well-being and engagement of the students and their class teachers, plus the extra insight this gave teachers into their students’ potential designerly capability. It discusses the implications of expanding such a philosophy and the conflicts it will face in the present education of young people.

Keywords: Engagement, metacognition, developing pedagogy, Forest School, Designerly Play

Introduction

Picture this scene. A group of young children and their teachers emerge from a woodland area. They are muddy and wet, yet animated and at ease. They have been on a Forest School session. For the last 2 hours they have, both pupils and teachers, been skilfully guided through a series of outdoor nature-focused experiences designed to enhance their understanding of themselves and their immediate community. They are dirty, fatigued, mostly happy and with a confidence that suggests that they would like to do this again.

The teachers have gained unique and valuable insights into their students. Many, despite teaching them in school, had not previously witnessed the meta-learning capabilities of their students that emerged through this experience. One aspect of this was the ways in which children’s play in the woodland setting frequently became ‘designerly’. This paper provides insight into a study undertaken in the context of Forest School learning where the activities and learning of the children are viewed through the lens of their engagement in designerly play.

Outdoor Education and Forest School

In Forest School, the connecting principles of play and autonomy have been developed ‘outdoors’ through the Forest School philosophy, which is described as

An inspirational process that offers children, young people and adults regular opportunities to achieve, develop confidence and self-esteem through hands-on learning experiences in a local woodland environment. (Forest School Association, 2020)

Forest School principles have a positive impact on participants’ well-being and their engagement in learning. Evidence links the benefits of play, learner engagement, development of meta-intelligences

and knowledge and understanding of the world (Blackwell, 2015, Natural England, 2016, Play England, 2000).

Play, wellbeing and holistic development

Holistic development is a concept whereby a person is seen in their entirety (socially, physically, intellectually, culturally, emotionally, and spiritually). Children are encouraged to foster all of these elements simultaneously by giving them the freedom to interpret and respond to a situation in a way that is unique to them. Play England (2000) have identified that one of the most effective ways of facilitating holistic development is through play, the effects of which can be seen in an increase in child wellbeing.

Play, Designerly Play, engagement and reflection

It is well recognised that all children engage in play, and that their development and play are closely linked. As such, England's Department for Education outline within the Early Years Foundation Stage that the three main "characteristics of effective learning are: playing and exploring ... active learning ... [and] creating and thinking critically" (DfE, 2017, p.10)

The play that humans engage in is seen as more than 'trial and error'. Bruce (1991) use the phrase 'free-flow' play and defines this as "wallowing in ideas, feelings and relationships + application of developed competence, mastery and control" (Bruce, 1991, p.60). She says that

This process of free-flow play uses firsthand experiences of struggling, manipulating, exploring, discovering and practising, and forms a network with other processes such as games, humour and representation. (Bruce, 1991, p.60)

Coghill (1989) further supports this idea and indicates similarities between playing and designing.

We play because we want to play, but in this way, we create an order that exists because we say it is so or because we have arranged it so. Is this not what designers do? (Coghill, 1989, p.59)

Baynes (1994) in his studies of the links and similarities between the way children play and the ways that designers and creative professionals work, described this as "designerly play". He classifies this as the point when free-flow play transforms into purposeful (designerly) play. His analysis of the elements of designerly play highlighted three components: *configuration*, *situation* and *story*. With *configuration* he referred to the ways in which children arrange or appropriate 'props' such as those found in outdoor environments, like sticks and rocks or those found in inside environments like brooms or tablecloths. He highlights how such arrangement or appropriation leads to creativity, designing and making the props for their play. *Situation* refers to the context of the play, the invented settings in which the play takes place. *Story* refers to the narrative developed through the play, the ways in which action is taken as designing and making emerge.

A critical learning outcome of designerly play is the development of reflection. This links closely with the development of meta-knowledge. Making and playing are often viewed as the means or vehicle for learning other things, rather than as activities valuable in themselves. They are often seen as the 'sugar' to coat the bitter pill of learning. They are not regarded as skilful in their own right nor as fundamental intellectual tools (Coghill, 1989). Burke, (2010) explores the way play lays the foundations for reflective and creative thinking in young learners, referencing Donaldson (O.F) in Burke (2010) to highlight that 'Children learn as they play. Most importantly, in play children learn how to learn.' (p.79).

Anderson (2018), Meyer, Haywood, Sachdev & Faraday (2008) and Williams (2003) explore how facilitating opportunities for young children to play can enhance meta-learning in that it encourages enquiry (reflective thinking), builds schemas (Vygotsky, 1978) and is not reliant on verbal communication (Donaldson, 1978).

Research into pupils and their designing has shown it vital for pupils to be both active and reflective. (Kimbell, Stables, Wheeler, Wozniak & Kelly, 1991; Lawler & Olliff-Cooper, 2015). Within play this is always possible as fantasy and reality often blur together. Designerly play indicates the degree and capability of children to engage with both reality and fantasy in their play towards a goal.

Outline of the full study

This research was conducted in an English progressive independent school (students aged 4 to 18.) The school was founded in 1898 with ethos and principles of active liberal child-centred learning focussing on the whole child. This vision is still at its core. The research team consisted of three members of the school teaching community, with collective expertise in Design and Technology, class teaching of primary-aged students (age 4 to 11) and leading Forest School experiences. The balance of the guidance by the Forest School Leader and the autonomy of the students were critical components to keeping the students safe and encouraging student autonomy. This was facilitated by risk-assessments prior to and throughout the sessions plus constant in-action reflection on the ‘nature’ of learning taking place. Each session began with the Forest School team and the students gathering, negotiating and re-establishing their aspirations for the session. Sessions progressed through some planned and some spontaneous experiences. Staff intervention was kept to a minimum, though if students asked for help it was always given. Staff were vigilant for opportunities to respond to student needs, by changing the activity, location or emphasis.

The study took place over 18 months in 3 phases. Phase 1 took place over two school terms. It focussed on exploring the Forest School approach in relation to the school’s ethos and related characteristics of learning and the possible benefits for children who were disengaged from the curriculum. Two small groups of mixed age children (5-7 and 8-11 year olds) identified by their teachers were involved. Each group contained ten children and each session was two hours. This exploratory phase indicated that Forest School experiences had a positive impact on the children involved and identified a need to create a system for monitoring the nature and level of their engagement. It also prompted a need to explore the approach with whole classes of children and their teachers. Phase 2 involved both small groups and whole classes and their teachers and created a tool to record the developing characteristics of learning and meta-capabilities emerging from each student’s engagement. Amongst aspects noted, both play and designerly play became more explicitly visible. Phase 3 built on the earlier explorations and included four classes, two aged 5-6 years and two aged 6-7 years, with their teachers. This paper focuses on the findings from Phase 3, specifically regarding the relationship between free flow play and designerly play, focused through the following research questions:

In what ways do Forest School experiences facilitate the development of free-flow and designerly play and the interaction between the two?

Can the learning that takes place in the informal setting of Forest School be blended with the more formal curriculum of young children?

Outcomes: focusing on designerly play in outdoor education

For this paper the focus is on what became apparent in the context of designerly play. Taking Baynes’ (1994) categories of configuration, situation and story as three lenses through which to view the children’s play it was possible to see if and when these aspects of designerly play emerged, what prompted them and how activities unfurled. Throughout each session video was used to capture the children’s play and the views of the class teachers involved in both phase 2 and phase 3 were also collected. Whilst the study was small, with ten teachers commenting, the overwhelming response from the class teachers was positive with teachers seeing it as having such positive impact that it should become a “compulsary part of the timetable” and reporting how much children enjoy the experience, summed up by one teacher’s comment that the children asked “How many sleeps till Forest School?”.

With regard to designerly play, eight teachers highlighted aspects related to designerly behavior and the learning that accompanied it. Commenting on what has most engaged children, the skills developed, the learning that took place included;

Den building, Making swings with ropes and logs and tyres and old planks. Making pulleys.

They learn they CAN make or build or create things of their own design. They learn how to talk to each other to get things done. The thrill of them mastering a skill is lovely to watch

There are no toys – children have to create what they want from natural materials, imagination, communication, empathy, conflict resolution, resilience, bravery.

Teachers also commented on the special impact on children who can find formal learning contexts challenging;

Children in the autistic spectrum literally SHINE. ... I've seen amazing pulley systems, original tools created and made – and other kids get to see them as capable and clever

Teachers were able to see the extent of children's learning in informal situations that were less possible in the formal setting of a classroom;

I believe in gross motor activities. Running jumping climbing, making large structures like shelters/dens/bridges/ swings ... things they can't do in class.

The following cameos of events witnessed, illustrate both the evidence of learning taking place and the complexity and the fluidity of movement between Baynes' (1994) classifications criteria of designerly play as configuration, event and story and what Bruce (1991) refers to as free-flow play.

Zip Wire

The children were introduced to a steep wooded bank. From around a particularly large tree on the top rim of the bank was a piece of chord which stretched down into the valley. The chord was not strong enough to support a child's weight. The other end of the chord was attached to another tree. The children played with it by using it as a line to follow to help them climb to the top of the bank. At this point a line of them saw themselves as explorers, climbing a mountain. Then one of them suggested that this was a 'zip wire' and they began to try to slide down it with their hands. One of the children suggested using a piece of wood held across the chord to be the zip wire pulley. They then took turns to run and slide down the slope, holding a stick over the chord then returning to the top to repeat the 'ride'.

The addition of a configuration, prop, or in this instance, piece of string had promoted designerly play which led to the 'story' of being explorers and the introduction of further props. This allowed us to note that designerly play does not always lead to solutions but can act as a further trigger for playful activities.

The Hollow Tree

At another point in the woods was a hollow tree. It was very hollow and had interconnecting tunnels on the inside and branches and holes on the outside. These spaces could hold about eight small children at several levels. The children walked to the tree, more distant than they had previously ventured. They immediately began to play in and on the tree. They were confronting their fears of climbing and being in confined dark woodland spaces. At a certain point they began to consider the hollow tree as some sort of dwelling with wriggings and climbings and discussions about the places inside of the tree where they could live.

This is my bedroom
you can sit down there
you can't be there that is the kitchen
this is where we eat

In reality the spaces were far too small to actually live in, but their play had moved from free-flow play to designerly play and an event and story.

Mud pool, the filtration system and the tea party.

On their first visit to the woods and after an initial orientation exercise one group were led to a particular clearing. In the centre of the clearing was a mud pool about 10 x 4 metres, where the children gravitated. At first, the children enjoyed wallowing in the splashing and squelching as they waded through, becoming ever more daring in how ‘deep’ they travelled into the mud pool. Before long the children were kneeling and even lying down in it.

To their initial dismay, one child realised that within their mud play, their water bottle had been dropped into the mud and was now filthy, with some of the mud having got inside the bottle itself. Another child suggested they made a ‘filtration system’ to clean the water. As they started to gather small stones, leaves and other resources, more children joined in, making suggestions and improvements on how they might clean the muddy water more effectively. New ‘tools’ and processes were suggested and trialled. Other children who were not so interested in the filtration system, continued making mud pies, mud cakes and various other potions for a ‘tea party’.

The play/design worlds of the two separate groups sometimes over-lapped to share ideas and resources and at other times remained separate. At the end of this session, the filtration-system group decided to continue their ideas back in the classroom where they had more of the types of equipment that they had decided they needed to ‘filter’ the water properly.

Free-flow play could be seen to have changed into designerly play via what Baynes refers to as ‘a situation’ or a task. The play developed a purpose and one that involved solving a problem and collaboration and continued once back in the classroom setting.

Discussion and conclusion

The ability to learn through the activity of playing with and conceptualising possibilities of what ‘might be’ is particularly developed in humans. Play is a vital component of our maturation, learning and progress. The trial and error involved in designerly play (judgement and values, continuous cycles of critical reflection and action) is an essential part of developing design and technological capability (Kimbell et. al., 1991). Our first research question focussed on play and designing in the context of Forest school: *In what ways do Forest School experiences facilitate the development of free-flow and designerly play and the interaction between the two?*

What emerged through the activities in the woodlands was that initially, the children’s activity was exploratory and free-flow. Using Bruce’s (1991) term they wallowed in the experience and, where mud was concerned, quite literally! At some point in this wallowing, purpose was provoked and the play became designerly. Baynes’ (1994) three categories could be observed, sometimes following a sequence of a prop becoming a situation that led to the enactment of a story, sometimes just one or other of these could be seen. What was also evident was that there was often a move backwards and forwards between free-flow play and designerly play as children at times acted with intention and at others wallowed in the experience that the intention had created – as can be seen in the example of the zip wire as, having created the pulleys, the children wallowed and developed expertise in sliding down and running up slopes.

Our second research question focused on the links between such learning in informal and formal education settings: *Can the learning that takes place in the informal setting of Forest School be blended with the more formal curriculum of young children?*

Whilst the research reported here is early work in exploring learning linked between outdoor education and design learning, it does indicate that through the use of Forest School principles of working in the outdoors and encouraging self-managed learning, foundations are being laid for the development of design and technological capability. But the learning that took place was largely in an informal learning setting. The challenge that this opens up, is how this learning can continue to flourish when the context shifts to that of formal education.

In England, compulsory, formal schooling begins at age five. Children arrive with a huge variety of expectations and experience, both behavioural and intellectual. Those that have attended child-care settings prior to compulsory schooling, will have experienced the Early Years provision (DfE; 2017) that runs from 0-5 years of age. This is organised through developing ‘cognition’ through enquiry-projects and ‘metacognition’ through the ‘characteristics of effective learning’ (DfE, 2017). But at age five, the curriculum changes to a more objectives, subject-oriented focus. Curriculum documents mention the value of development of the meta-cognitive characteristics of learning but often the requirement for proof of objectives-met leaves little space for children to think creatively, be critically reflective or self-actualise.

The direct involvement of class teachers allowed for discussion and planning with the children in their classrooms in between Forest School sessions. This allowed teachers to observe their children’s activities in the woodlands often witnessing, for example, imaginative and creative stories being generated in ways that had not been evident within the classroom. Teachers were able to build on what they had witnessed once back in their classrooms and use this as a springboard for the next Forest School session. It also allowed teachers to witness behaviours that were uncommon, for example this report from a teacher following one session.

A couple of children stood out as being uncommonly engaged [in the woodland]. Seema and David, who find it hard to keep their attention on tasks in the classroom, were completely captivated. Following on from both our visits to the woods, David had a great week and was really focused in the classroom.

Robinson (2008, 2010) firmly places England’s educational systems in a culturally formed construct of the past, without giving enough thought to students’ needs now or in the future. Papert reminds us that “Rather than pushing children to think like adults, we might do better to remember that they are great learners, and to try harder to be more like them” (Papert, 1993, p.84). In the words of one of the teachers involved in the study (referring to England’s National Curriculum)

Learning through play ... Early Years Foundation Stage for all ages!

For the school involved in this study Forest School principles are part of its ethos and the class teachers were involved as participants, as partners in the journey with the possibility to build on the experiences. Building a curriculum that recognises the liminal space between the formal and informal that allows the fluidity of learning as effectively as that of the children moving between free-flow and designerly play is a challenge. For the future it is intended to co-create an outdoor learning facility with the students and colleagues, which facilitates play-based student enquiry and the opportunity for designerly play to develop. Those teachers interested in this approach can then freely embed their own practice in the magic of the natural environment within the school grounds and that blends learning between the two.

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Kim Olliff-Cooper is a primary school teacher/design and technology specialist and Forest School Leader at King Alfred School. She is also a progressive education consultant and founder of Holistic Learning Ltd. She is committed to developing research and practical pedagogy for primary-aged children to flourish holistically through creative enquiry-focused learning.

Tony Lawler is a design and technology consultant and former lecturer at Goldsmiths, University of London. His research interests include making withing design and technology education. He teaches blacksmithing at The King Alfred School.

Chris Raymond works as a design and technology technician and Forest School lead at King Alfred School whilst embarking on special projects that blur boundaries and disciplines. Outside of school Chris continues to work as a furniture and product designer.

Kay Stables is Emeritus Professor of Design Education at Goldsmiths, University of London and a founder member of the Technology Education Research Unit at Goldsmiths. Her research focuses on design processes, pedagogy, assessment and sustainability in design and technology education. She is co-editor the research journal *Design and Technology Education: An International Journal*.