

8. Re-creation and recreation: playful sustainable fashion textile projects with school children

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Abstract

The socio-environmental impacts created by the fashion industry have been well documented. At this time of increasing global climate anxiety and the rising costs of living, the need for pleasure, escape and joy from our daily lives is also keenly felt. This chapter considers how might we bring about change through play with young fashion users. The author reflects on a body of practice research and discusses a range of workshop approaches using discarded clothing. The three small, informal projects that were conducted with school children in London, UK, are considered in terms of how the current sustainability curriculum models might be extended through 'recreation' – play – and 're-creation' - to make again (in this case items of discarded school uniform). 'Re-creation' is also considered in terms of how we as design researchers must be ready to change ourselves – our own direction of travel and the focus of our efforts - when working with urgent wicked and complex challenges.

Harvard Play research

Introduction

Textile designers and researchers have a unique and important role to play in the emerging circular economies. Their ability to make new materials, reuse old ones, and explore novel contexts through physical means, puts them in a key position to drive, support and enable change, at both product and systems level (Hornbuckle 2022).

Textile design is also a field overtly populated by females, many of whom are mothers, or might become mothers. They work in industry, academia or elsewhere, and are also working hard at home. At work the awareness around the effects of the industry on the planet is creating additional pressure to change practices; at home many parents and carers are trying to raise the next generation of consumers in a more conscious fashion. Textile designers and researchers are increasingly making positive differences at work; as well as trying to instil strong values and habits in children and young adults. How might design researchers working with materials, align these tensions and challenges towards positive change?

Researchers have been reviewing school curricula around sustainability and climate change issues; some argue that children as young as kindergarten or nursery should be introduced to the climate emergency (Davis & Elliott 2014). In this chapter I will discuss a range of playful workshop approaches developed for both large international, interdisciplinary research consortia, and for local school children. The latter form three small, highly personal, informal materials and making-based projects that were conducted with children in a primary school in London. I was a volunteer at the school, and my own kids took part in the projects. I used the school uniform as a vehicle to share ideas, towards the aim of trying to understand how

young children learning about materials, textiles and fashion might give them some guidance when choosing their clothes later in life. The workshops are explored through the chapter in order to propose how current UK sustainability curriculum models in schools work but might be extended more specifically through ‘recreation’ – play – and ‘re-creation’ - to make again (in this case items of discarded school uniform).

Chapter overview

In the Background section of this chapter, I tell a personal story about working as a design researcher in industry whilst also being a mother to young children at home and attempting to be a responsible consumer. The two seemingly opposing experiences brought me to consider my children’s constant need and desire for new clothes, and how schools are failing to steer and support the development of the next generation of fashion and textile consumers. I also briefly reflect on research conducted in a fast fashion company. The ubiquitous school uniform is then introduced as the vehicle to explore ideas that can link parents, teachers and researchers within a school setting.

In the Climate, Education, Curriculum and Playful Research section, I draw on the report, ‘Reimagining Our Futures Together: A new social contract for education’ (International Commission on the Futures of Education 2021), to consider the current context of climate crisis, schools, universities and researchers. Taking damaged and lost uniform as the context for the practice research – the relationship between resilience and remaking is also introduced.

In the next section I bring together the various approaches taken for this research. The practice methods which oscillate between the role of making, to facilitating and back again, is briefly discussed. I position the materials and making projects in schools within an adapted Participatory Action Research (PAR) framework so that the range of outputs and resulting insights can be more clearly mapped and understood.

In the first of the practice review sections of the chapter, I group the industry research into three themes: Playful workshops; Playful communications; and Playful hat wearing. The published research reviewed in this section shows how different approaches were developed with project stakeholders to support knowledge exchange, trust, and understanding.

In the second practice section, three projects with school children are presented, with reference to current sustainable design curriculum which focuses on *reclamation*, *resilience*, and *regeneration* (Hauk 2017). These projects span a five-year period, and all explored questions about how playful approaches could be used at school to educate and inspire children towards sustainable fashion choices. The projects asked, ‘Where was my uniform made? Who made my uniform? What is it made from? Where do materials come from?’; as well as ‘How can I remake my own clothes? How can remaking my own clothes give me a greater sense of identity and belonging?’

The final sections of the chapter propose a model that places an emphasis on *re-creation* and *recreation*; the creative reuse of materials through play, whilst also considering our own habits and how we might change as individuals within our communities.

Background

Through large international research projects, I witnessed first-hand the stark reality of the scale of the impacts created by the fashion industry and sought to further enhance my understanding by reviewing the day-to-day work of employees in a large fast fashion brand. I then devised a ‘Sustainable Design Inspiration’ programme for them and delivered it by facilitating workshop activities¹. These were often playful in nature, using card games, and samples, as well as textile and clothing items produced by the brand.

Meanwhile, at home, I was bringing up small children whilst trying to be a conscious consumer myself and aiming to set a good example. Dressing the kids and doing the laundry was a daily activity. Raising a family has meant that I am constantly faced with new questions about fashion textiles. Whilst I can manage my own wardrobe behaviours to a large extent – like my decision to not buy new clothes for a year² - as children develop physically so do their emotional needs, and so does their relationship to clothes alongside their relationships with their peers. This is under-explored knowledge in sustainable fashion consumption research, and it wasn’t until I experienced the ‘intention-behaviour gap’ (Diddi *et al* 2019) for myself that I really understood what families face when making better, more sustainable, choices. I decided to devise a project with the local primary school to coincide with the first Fashion Revolution Day (FRD) in April 2014³.

Climate, Education, Curriculum and Playful Research

Whilst design researchers have long been working in primary educational contexts (Davis & Elliott 2014), few have considered how hands-on materials and making can lead to evolving more sustainable consumption habits (Hofverberg & Maivorsdotter 2018). At the same time, design researchers working with consumer behaviour studies have noted how difficult real change is to achieve – with so many of us falling foul of the intention-behaviour gap, as I noted above. Design researchers are increasingly finding that *playfulness* can lead to better engagement with all kinds of audiences (Feder and Gudiksen 2022).

The climate crisis is presenting educators with the challenge of preparing the next generation of consumers to make appropriate decisions about their habits, purchases and behaviours. Curriculum change is urgently needed to prepare for future challenges, if we are to fully realise ‘the transformational potential of education as a route for sustainable collective futures’ (UN Educational, Scientific and Cultural Organization, 2021).

HE Sahle-Work Zewde, Chair of the International Commission on the Futures of Education, President of the Federal Democratic Republic of Ethiopia, highlights the change required to address the inequalities and the challenges of the future:

We face a dual challenge of making good on the unfulfilled promise to ensure the right to quality education for every child, youth and adult and fully realizing the transformational potential of education as a route for sustainable collective futures. To do this, we need a new social contract for education that can repair injustices while transforming the future... Education is the key pathway to address these entrenched inequalities. Building on what we know, we need to transform education. Classrooms and schools are essential, but they will need to be constructed and experienced differently in the future. Education must build skills needed in 21st century workplaces, taking into account the changing nature of work and the different ways that economic security can be provisioned. (Ibid 2021:vii)

The report covers critical thematic issues: sustainability knowledge and learning; teachers and teaching; work, skills, and competencies; citizenship; democracy and social inclusion; public education; and higher education, research, and innovation. It argues that despite the emergence of digital learning platforms, the school as a physical place is irreplaceable, as they ‘ensure that everyone has available to them the experiences, abilities, knowledge, ethics, and values that will sustain our shared futures.’ (Ibid, 2021:95). The report looks ahead to 2050, to argue that schools will need to redesign the space, curriculum and experience to ‘nurture an ethic of solidarity and reciprocity through intergenerational, intercultural and pluralistic encounters... Students should be exposed to ideas and experiences they would not ordinarily encounter at home or in their immediate communities.’ (Ibid 2021:95)

It should be the job of design researchers to work on these new spaces, experiences and qualities. The report proposes how the relationship between universities and teachers is key to ensuring that HE is ‘capable of challenging and shaping the mindsets and pedagogies of the next generation of educators. In turn, educators can help universities to transform themselves, renew their public mission and better understand the roles they play in broader educational ecosystems.’ (Ibid 2021:88). The report concludes that how we work together – collaborating across academic structures, into industry and beyond – is critical if we are to effectively prepare for the changes that the climate crisis will bring. ‘Pedagogies of solidarity and collaboration are no less crucial in higher education than they are for children and adolescents – in fact, they take on even greater relevance for the emerging generations of professionals, leaders, and researchers that universities aim to produce’. (Ibid 2021:89)

The school curriculum and playful research

Art was introduced into the UK’s school curriculum in 1988, following a 1982 report which highlighted five core needs: communicating the value of the arts in education; the need for a coherent vision for the arts in schools within an equal framework for all subjects; linking what is taught, and how it is taught, to the needs of a changing society; the need for new modes of assessment and accountability; and what we would now term addressing equity, diversity and inclusion. Forty years later we are far from having achieved this vision, despite the ‘growing body of international evidence asserting the value of the arts in the lives of children and young people across a range of metrics.’⁴

The fundamental 3R's - reading, writing, 'rithmetic – are still firmly in place in the UK school curriculum, albeit with many new methods for teaching and learning with them. Sustainability and concern for the environment is also not new, with recycling projects having been a common feature within schools for years. However, more recent, subject specific, developments have commonly proposed the 7R's as a way to frame projects and activities in schools: 'reduce, reuse, recycle, research, repurpose, repair, rent'⁵.

Education research in the area has given us other models – e.g., 'mitigation, adaption and transformation' (Pelling 2009). For this chapter the author has used Hauk's 2017 work – 'The new "Three Rs" in an Age of Climate Change: Reclamation, Resilience, and Regeneration as Possible Approaches for Climate-Responsive Environmental and Sustainability Education' – as a way to categorise the projects discussed and to identify the new models that we might consider as we move ahead to more engaged and embedded scenarios.

Design researchers are increasingly looking to play a valuable role as the rise of climate awareness demands that we improve engagement and also leads to increased climate anxiety. The 'Understanding play — designing for emergence' track at the 2022 Design Research Society conference in Bilbao, Spain, explored emergent themes around 'play design research'. The track chairs argued that play has a key role for us in times of crisis, and that we should seek to '...bring back or intensify imagination, curiosity and surprise, both as part of design processes, and in the product, services, systems and living conditions that one targets.' (Feder and Gudiksen 2022).

Approach

Imagination, curiosity and surprise were what my approach needed to embrace. Not that I was fully conscious of that in 2014, when I embarked on the volunteering. I knew that it would have to be fun and playful, but at that stage I hadn't really understood how deep our habits and behaviours are engrained, and just what it takes to change them. I found that I needed to really extend my usual research methods to work with these participants and the unique questions that came about through the process.

The methods for this research are based around a hand-on materials and making practice, with workshop design and facilitation used in industry and in schools, as a way to explore ideas to feed back into my longitudinal practice research projects⁶. A Participatory Action Research (PAR) model was developed (Chevalier and Buckles 2019, 2021; Schneider 2012; Kindon *et al* 2007) to enable a clearer categorization of the projects in schools, which had been set up in an informal way. The projects led to writing blog posts, a book chapter, and giving podcast interviews, amongst other outcomes. These are all noted in the PAR framework (Table 1). The framework was also used to structure the two practice review sections of the chapter.

Table 8.1: The adapted PAR framework which maps the three schools' projects.

Projects / PAR		Inside Out Project (2014-15)	Cultures of Resilience Project (2015)	Parkour Jacket Project (2019)
PARTICIPATION: Democracy & Life in Society				
WHO - School kids, teachers, parents	Collaboration through participation	Kids Teachers	Kids	Secondary school boy
	Empowerment through participation	Kids, parents, teachers	Kids, parents, teacher	Secondary school boy, teacher
ACTION: Practice & Experience				
HOW - Based on materials, (used) uniform, creative play	Change, real life experience Evidenced through different outcomes	Homework task; Installation; Redressing uniform; Overprinting workshop sessions Outcome: Assembly (fig 9.1) & Material Box (fig 9.2) Outcome: Shirts (fig 9.3) & Auction	Toys to remake uniform in a gallery event Outcome: Exhibit – Toy Toolkit (fig 9.4) Kids clothes (fig 9.5)	Visual research, design, make, model, photoshoot, exhibit Outcome: Exhibit – Jacket (fig 9.6)
RESEARCH: Mind(set), Inquiry, Knowledge				
WHAT – Recreation, Re-creation Other schools, DATA podcast	New knowledge, document lessons	Reflection & Insights Blog posts Making with scientists	Reflection & Insights Seminar: Presentation and discussion	Reflection & Insights Art GCSE Portrait work Covid limited future shows

Playful approaches at work, at home and at school

I began making and using playful tools – mainly card decks - for workshops around 2009. The sustainable design strategy cards, The TEN, were co-created through playful workshops in the Worn Again: Rethinking Recycled Textiles AHRC project⁷. Using the cards with industry stakeholders created change in the daily practices at clothing brands, but change was also experienced by the facilitators. In ‘We Shape Our Tools Then They Shape Us’, we discuss how making The TEN and using them in various situations, changed the way we saw ourselves as researchers when working with other stakeholders.

When used together, the cards can serve as practical guidelines to examine, survey and highlight the problem of sustainability and the role of designers in change and innovation... Each card identifies a significant, critical area for attention in the lifecycle of the product and suggests a strategy for analysis and change; approach and resolution; consideration and action, acting as a tool to overcome the barriers to improvement. Developed with a focus on textiles and fashion, they have a potential role in generating strategic concepts for the design process generally... The cards promote group workshop discussions in game-play and role-play formats. They are offered as a range of entry points for positive research-led engagement from the practical to the idealistic. (Earley & Politowicz 2013:176)

After a period of working with these cards with different industry stakeholders, I would often return to a studio practice in which the problems and barriers, the practical as well as the idealistic ideas from the workshops would continue to reverberate. I would find ways to make and experiment with materials in as many project future engagements as possible. This might mean entering a project as a workshop facilitator but in a Trojan horse-like manner, once onboard find a way to make prototypes so that the ideas being discussed did not get stuck at a conceptual level (Hornbuckle 2022). The projects in the school didn't follow this model. Instead, the focus was co-developing an approach with the deputy head, which would focus on facilitating the children to remake textile objects through play. I made toolkits and then guided the pupils through the process of making overprinted garments for themselves.

This research was about play, textiles and making, and the ambition to create change in others, as well as myself. It was also the result of a period of time where I felt I needed to reflect on the way I was mothering my small kids. Throughout this period, I reflected on the changes that were taking place – at work, at home, and in my practice. I published blogs during this period via my personal website⁸, and I quote from the blog throughout the chapter.

Reframing for research

Recreation (play, fun, enjoyment when not working) and *re-creation* (making using old materials, reusing valuable resources) were the core approaches in the project work; because we were working with children and needed their attention, and because we had to use materials that were accessible and relatable. These words surfaced as the research evolved through reading, after the workshops took place. I also retrospectively mapped the projects and the outcomes into a PAR framework. I created the framework by bringing together different aspects I found useful in reading about PAR - also after I had done the work at the school. The following points draw from table 1 to summarise the school projects.

- *Participation: Democracy & Life in Society.* The school's projects involved pupils, teachers and parents. Collaboration was achieved through participation in planning and delivery of workshops. Empowerment and learning was experienced by those involved, through participation in the sessions, and through the making of the final

outcomes into garment form. Teachers also felt empowered to integrate the ideas into lessons. Public and academic audiences watched the sessions in the gallery (The Well Gallery, London College of Communications, UAL).

- *Action: Practice & Experience.* The workshops were based on materials, (used) uniform and creative play. Homework tasks were set by the teachers which asked the students to look at the labels on their uniform. The pupils co-created an installation which showed the airmiles for items of uniform (figure 8.1, left). I made various toolkits (figures 8.1, middle; 8.2, left) and the pupils made upcycled school shirts (figures 8.1, right; 8.2, right). The project actions also included: visual research; design and make; modelling and a photoshoot; exhibition of overprinted jacket and framed photograph (figure 8.3).
- *Research: Mind(set), Inquiry, Knowledge.* The workshops were documented and presented at research and teaching events at UAL and formed the basis of a conference keynote⁹. I wrote about the work in blogs and talked about it in podcast interviews¹⁰. New ideas were generated which fed back into consortium workshops with scientists.

Practice 1: Playful Design Research Projects with Academia & Industry

Circular textile design differs from traditional textile design because it asks the designer of the textile to not only create a new material, but to prioritise the use and end-of-life of the product at the outset. This requires the designer to not only understand more about the processes of production, use and disposal, but much more about the *people* in these new systems too. Working with people from a broad set of backgrounds, cultures, training, professions, with different languages can be extremely challenging, and progress when working together for the first time can be slow. Playful approaches have been experienced as a really useful way to align expectations and build confidence and trust between stakeholders. This section looks at previous ‘playful’ industry-located research – grouped into three themes - to reposition the work. Throughout it highlights how the element of *recreation* (‘play’ and ‘playfulness’) was introduced in formal research project workshops and events.

Playful workshops: product speeds and portrait making

In the Swedish-based MFF project, I co-created workshop tools to support the generation of new product concepts by stakeholders for multi-speed circular clothing. In ‘Designing Fast & Slow: exploring fashion textile product lifecycle speeds with industry designers’ (Earley & Goldsworthy 2015), we explored how certain products might be created to travel quickly through a cycle and which ones might travel slowly. The results extended beyond individual garment scenarios to include systems perspectives towards more ‘delightful’ and interactive clothing. In ‘Playing for time: seven practice-led workshop tools for making design decisions to extend the life of fashion textile materials and products’ (Earley and Goldsworthy 2017) we built on this work through enhancing the understanding of longevity as both a *product* and a *material* consideration. The ‘Speeding Tickets’ are a good example of how a playful approach was used (Earley & Goldsworthy 2019:15).

In the article, ‘Face-ing Collaboration: A Meditation on the Faces of Circular Textile Research’ (Earley & Hornbuckle 2017b) we considered effective working relationships between participants in another multi-disciplinary consortium project, Trash-2-Cash¹¹ (T2C). We hosted a series of informal sessions within the larger consortium workshops; participants created portraits using photography, visual data mapping, silent meditation and sketching, to bring partners closer together by taking time to focus on each other’s faces. The co-created recycled shirt print design¹² built further connections between collaborators. We found that this method informed the development of subsequent internal communication and facilitation tools, as well as external communication approaches for the project as part of a wider strategy to engage external non-specialist audiences in the work being undertaken.

Playful communications: postcards and podcasts

In ‘Postcards from the edge: Trash-2-Cash communication tools used to support inter-disciplinary work towards a design driven material innovation (DDMI) methodology’ (Earley & Hornbuckle 2017a), postcards used in workshops contributed to the communication channels and shared understanding of methodological approaches. The inter-disciplinarity of the participants was key to achieving the project aims – but communication between sectors was challenging due to diverse expertise and levels of experience. Language and cultural differences can also be barriers to collaboration as well. Designing easy and accessible and fun communication tools was one of the approaches used help build relationships.

In ‘Building Bridges: Design Researchers Making Podcasts to Support Internal Collaboration in an EU Horizon 2020 Scientific Programme’ (Earley 2019), I set out to demonstrate how new methods and tools could further bridge gaps in communication and understanding in the T2C project. Partner questionnaires ascertained how a podcast series progressed the collaborations as well as benefitting the expanded practice of design researchers in social contexts.

Playful hat wearing: roles and reflection

Playful approaches may help designers to move beyond the confines of their usual disciplinary practices. We can assume different roles ourselves; we can empathise with others in different roles; and we can then also build project teams and community groups with infrastructures that foster trust, support risk-taking and encourage inter-disciplinarity. Notional ‘hat-wearing’ and workshops that focus on developing one’s self-empathy skills and the ability to listen and relate to others more - are discussed in the article ‘Divide, Switch, Blend. Exploring two hats for industry entrepreneurship and academic practice-based textile design research’ (Hall & Earley 2019). The hats of the academic researcher and that of the industry entrepreneur supports the ability to talk to a factory owner, or work with technicians; then switching hats enables the researcher to reflect and write up in a scholarly style.

In ‘A New ‘T’ for Textiles: Training Design Researchers to Inspire Buying Office Staff Towards Sustainability at Hennes and Mauritz (H&M)’ (Earley *et al* 2016), we reflect on

both the training delivered to industry designers in the MFF project, as well as the training I organised within our own research centre team. The notion of the traditional ‘T’ shaped designer is challenged by adding a new horizontal bar across the bottom (making an ‘I’ shape), as the design team used playful, reflective moments (including yoga and meditation, games, journaling and sketching) to build a greater understanding of oneself and others, with a focus on skills that will embed design practice ideas and give them impact. Co-author and MFF PhD researcher, Clara Vuletich, became interested in transition design (Kossoff & Irwin 2021) and what it means to change oneself as well as the community around us. Her final thesis, ‘Transitory Textiles: a craft-based journey of textile design practice towards new values and roles for a sustainable fashion industry’, explored the inner and outer selves of the activist textile designer.

Summary

These industry-facing workshops – designed to adhere to the formality of the research funding body stipulations as well as the requirement for the workshops to be viewed by the brand as a good use of its staff’s time – left me curious to experiment with experiences that brought clothing more directly to users further back in the consumption timeline. In particular, as the fast fashion consumer demographic is young adults, was there was a curiosity about what was going on in the minds of the next generation? Would they be buying fast fashion at the same pace as the current customers, or would they want something different, if the climate crisis discourse becomes more popular and urgent?

Practice 2: Three School Projects

How can designers use materials and making with items of old and lost school uniform to playfully explore the habits, behaviours and attitudes to clothes and fashion, amongst the next generation of users and designers?

In these practice-based projects, used textiles in the form of discarded school uniform from the lost property box, is coupled with hands-on, playful making activities, with different groups of primary school children. Between 2014-2020, I delivered a number of small projects at a local primary school in West London. The interventions centred on the school uniform as the focal point for exploring how sustainable design might be incorporated into the curriculum in more playful ways.

These interventions began by engaging with the school as a parent volunteer – not in my professional work capacity as a design researcher – however as the mini projects progressed, they were brought into discussion points at research events at the university. Working with the children in different spaces inside and outside of the school, as well as in a gallery space at the university, activities were facilitated that ranged from mapping the supply chain journeys for the school cap, to turning jumpers inside out, to paintballing and skateboarding with fabric inks, to co-creating upcycled shirts for fund raising auctions.

Inside Out (2014)

Reclamation is the process of claiming something back or of reasserting a right. It can be about restoring dignity and the preservation of people, skills and (material) resources throughout the clothing lifecycle.

On 24 April 2013 the Rana Plaza factory collapsed, killing 1,138 garment workers. The catastrophic event brought into sharp focus the conditions under which cheap clothes are made. Whilst the industry can be a force for good, providing employment and growth for emerging economies, the high street appetite for fast fashion puts pressure on producers to make economic savings wherever possible. The corners they cut are often wages, as well as health and safety precautions. The fashion industry that clothes us is built on exploitative, highly optimised business models. Fashion activists, stakeholders and researchers are demanding that we challenge this, reclaiming the joy and pleasure of dressing up by creating or accessing clothes outside of the large corporate fashion machine.

A week after the disaster, I was invited by Orsola de Castro to support the Fashion Revolution Day advisory group, and this provided me with a way to frame the project ideas with the school in 2014. Reflecting on my children's emerging fashion habits and tastes, I began to write blog posts to help develop a project idea that would respond to the FRD initiative in a more local and personal way.

*The sofa is where I sew. What I usually sew there is school name tags into school uniforms, and mend sleeves and other ripped and chewed details. I sew labels in to uniform far more often than I really should - as the kids lose clothes and I have to replace them. It's been bothering me a lot lately. Not that I begrudge the sewing - I find it meditative. It's more that my own offspring couldn't seem to grasp that clothing needs to be looked after. From the sofa I can see into my daughter's bedroom. From the door to the front room, I can see into my son's room. Both floors are piled up with clothes. Tried on, worn briefly, discarded... left to mum to pick up, put away, move to the laundry basket. Aged 8 and 6 it's definitely approaching the time when they can get more house trained...*¹³

At school the lost property area is a mess of unlabelled and unloved green, white and navy cotton and polyester. I decided to start here with my research and look at the way in which primary school children relate to their uniform - their everyday clothes. The deputy head and I hatched a plan to run a 'Who Made My Uniform' project, in response to the FRD provocation 'Who Made My Clothes?' Beginning with a carefully prepared school assembly on the actual day, the project consisted of a week-long residency by myself with the help of another mum, and a series of class projects run by the teachers. We asked, 'Where was my uniform made? Who made my uniform? What is it made from? Where do materials come from?'; as well as 'How can I remake my own clothes?'

In the assembly, which took place on the first anniversary of the Rana Plaza factory collapse, the pupils presented the results of a class project, in which they had traced the miles travelled of each part of the school uniform. They were shocked to find that the school cap had been

made in Vietnam and had travelled 9,234 kilometres to the UK (Figure 8.1, left). Parents commented on the children's responses they witnessed at home; the children had shown their parents the labels in their clothes and talked about their surprise – both children and adults – at the geographic diversity that their uniforms spanned. After looking at the installation of uniform, the assembly then asked the pupils to turn their jumpers inside out, so that the labels were on the outside, highlighting the awareness of the supply chain, which led to the assembly then focusing on the people in such supply chains. The deputy head showed the children films and images about factory work and factory life, and how many factories employ children. The pupils were asked to take a moment to think about these children, and the deputy head then led a prayer for these children with the pupils.

<Figure 8.1 here>

Figure 8.1. Left - 'Who Made My Uniform?' installation, special assembly, 24 April 2014. Middle - 'Where do materials come from?' workshop series with nursery class to year 6 pupils, April 2014. Right - 'School Shirts' workshop series with years 2, 3, 4 and 5, April 2014. Photographs by the author.

The assembly prepared the pupils for the materials workshops. I asked the pupils, 'Where do materials come from? Where do they go after you have finished with them?' I created 'The Handling Collection' - a box of material samples, enabling the children to feel for themselves the fibres and textiles, which ranged from cotton, wool, polyester, bamboo and hemp, to less conventional materials with their origins in paper, pineapples, milk and coffee (Figure 8.1, middle).

The workshop involved handing around a raw resource – like a bamboo plant – the textile sample was then handed around to allow the pupils to understand that all materials are made from something, and that something would need to be grown, harvested and processed in different ways. The workshop then went on to talk about where these materials could be found in the uniforms they were wearing, before ending with reuse and recycling options, and finally how these materials can be made into other things after they finish their first useful lives.

For the next workshops, simple domestic tools – like scissors and an iron – were used to 'upcycle' school shirts from the lost property bin at the school. Each pupil folded and then cut and printed a square shape on to the shirt using the dry heat of the iron. A patchwork print design emerged organically as each pupil chose the place for their paper square. The shirts were later sold to parents at a fund-raising auction at the school (Figure 8.1, right).

Cultures of Resilience (2015)

The Cultures of Resilience (CoR) project allowed me to return to the FRD themes a year later, in April 2015. CoR was led by Professors Ezio Manzini and Jeremy Till, and was concerned with research ideas that could foster and support 'resilient' behaviours and communities. *Resilience* is the capacity to recover quickly from difficulties; to be 'tough'.

This project was about using fashion textile design to counter current clothing norms of behaviour and expectations. In the essay 'Elastic Learning Tools' (Earley & Harvey 2015) Bridget and I explain an idea about resilience and of making the mending of clothes part of the curriculum.

Children in particular are hard on their clothes – running, falling, spilling and so on – should we aim not to circulate but to help them remedy mishaps, making time to care for clothing, rewilding garments through the freeing-ness of mending? (Earley & Harvey 2015:74)

We go on to align mending and repair to resilience, and to the idea of elasticity, flexibility and how the curriculum currently assesses children.

Resilience requires trust in those with deep expertise willing to be part of the curriculum and being prepared to build institutional reputation through this exchange. Rejecting the downward slide to the numerical standardisation of assessment and instead crediting our children with their achievements, the quality of their thought processes and their ability to discern between information... to be reflexive and flexible. Assess their resilience. (Earley & Harvey 2015:74)

<Figure 8.2 here>

Figure 8.2. Left - Objects borrowed from home used as printing tools to make a toolkit for upcycling school uniform through physical play, 27 March 2015, Well Gallery, London College of Communications, UAL. Right - Dyed school shirt overprinted by children with a skateboard, 27 March 2015, Well Gallery, London College of Communications, UAL. Photographs by the author.

I collaborated with Bridget Harvey to build on previous project work, towards a performative and physical, playful experience. We asked, ‘What everyday items could we use to create an inspiring toolbox for school children, encouraging them to consider old school uniform as a potential resource for fun and creativity?’ Our take on resilience here was to show kids and teachers that upcycling old clothes can be done using anything to hand – specialist equipment is not required – and that it can be physical and collaborative process. Resilience and clothing translating into a ‘toughness’ – as in, despite a lack of money or resources, we can still care for the planet and ourselves in joyful ways.

To test these ideas, we took over a public gallery space (The Well Gallery, London College of Communications, UAL) and invited a group of pupils from the same London school to come in for an hour to create overprints on old clothing using a toy toolkit (Figure 8.2). Using a skateboard to overprint a school shirt (previously over-dyed in the washing machine) created great excitement amongst the pupils. From M&S, new and white; to used, dirty and ripped; then made green and overprinted in this manner - the journey in visual and physical terms had a magical effect on the kids and their view of their everyday uniform. Using fingers to make marks is not only pleasurable in a sensory way, but the dramatic nature of the mark which is transferred to the upcycled garment adds to its aesthetic and novel appeal. In other words - the kids loved that their clothes were printed with the evidence of their play and

pleasure¹⁴. Several of the shirts from this session were worn by the kids after the event; the energy used in the creation process seemed to translate into an enthusiasm for wearing the bright shirts with pride.

Parkour Parka (2019)

By the end of the above projects, my son had moved on to secondary school. Here, at a boys-only school, the curriculum now included design and technology, but nothing on textiles and sustainable fashion. By contrast, in the girls-only secondary schools in the area, 'fast fashion' was on the curriculum, and some schools taught sewing and dressmaking as well. Do boys not wear clothes? Do boys not consume fashion, as they move into their teenage years? The work that had begun in the local primary school now seemed unfinished, as I observed the behaviour of my son and his friends.

The definition of *regeneration* is the action or process of regenerating or being regenerated. This project was about using fashion textile design thinking to enable the reimagining of our mindsets and urban surroundings. It asked, 'How can remaking my own clothes give me a greater sense of identity and belonging?'

My son loves trainers. He's a football fan and player, and the influence of the Arsenal team and their colourful attire - and what is donned by his group of friends at school and on his team at the local sports centre - is significant to him. He got the trainers he wanted for Christmas - bright orange. They looked amazing with his lime green away kit. Yet within days he started asking for another pair, in a different colour. I took the opportunity to explain to him again about why 'stuff' is special. The materials, dyes, labour, shipping... all comes at a cost, and not just to the bank of mum and dad. At 8, he knows all this already. We talk about 'stuff' all the time. But he just can't make the leap to applying this knowledge to his insatiable desire to be part of the team - to look the part.¹⁵

The 'Parkour Parka' was a project my son and I decided to do, with the aim of submitting a co-created artwork to the annual school art show, which exhibited the creations of both parents and pupils every year. The collaborators chose to upcycle a piece of sports clothing. A polyester zip up jacket, by Uniqlo, found in a textile sorting facility in China, formed the base piece for the project. Then the urban sport of 'parkour'¹⁶ was chosen as a theme to inspire the overprint design. Silhouettes of athletic figures were drawn on to black transfer paper and cut out, then pressed using an iron on to the jacket. The resulting garment turned an old, stained, dirty white jacket into a one-off upcycled item. I photographed my son wearing the jacket at night, in urban settings, as he emulated the moves of the Parkour experts (Figure 8.3, left). A large photographic print was chosen and framed for the school exhibition and shown alongside the jacket (Figure 8.3, right).

<Figure 8.3 here>

Figure 8.3. Left - 'Parkour Parka', over-printed polyester jacket co-created by the author and her son. Right – image selected for the exhibition at the school. Photographs by the author.

Re-creation / Recreation

The climate crisis demands us to make again – to re-create – the way we live and the things we make. One way to reduce impacts is to use circular economy approaches. In the UK textile industry, it has been predicted that as much as 26% of emissions can be reduced through using circular approaches (WRAP 2021:12). This will mean using recycled materials, making things recyclable, and making things last as long as possible.

The social and economic pressures arising around the climate crisis and the urgent need for us all to change are growing, and we can already see evidence of climate ‘anxiety’ (Clayton 2020). Playful approaches to question behaviour may be useful, especially when trying to engage young users. The model in Figure 8.4 proposes a reframing of sustainability curriculum research to focus on the use of old materials and play, by drawing together the core theoretical elements the research has explored.

< Figure 8.4 here >

Figure 8.4. The ‘Re-creation / Recreation’ model brings the popular 7R’s together with Hauk’s ‘Reclamation, Resilience, Regeneration’ themes.

Re-creation - to make again – enables primary schools to tap into the popular and eternal appeal of using discarded materials for projects. Addressing sustainability issues to combat climate change can also be seen as making again the way we live. The model places the idea of *recreation* – an activity done for pleasure when one is not working – as the all-encompassing approach for this thematic. Through a sense of fun and play we can plant the seeds of change.

Through the process of creating table 8.1, I was able to reflect on the research by considering PAR. These projects were all about participation. The projects involved pupils, teachers and parents. The Deputy Headmistress was key to agreeing to the projects; teacher1 made her own project in parallel to my activities. Teacher2 accompanies the children to the gallery workshop. Collaboration was achieved through preparation, planning and participation in workshops. The assembly involved all the teachers and pupils. A parent helped with the shirt printing workshops.

Changes in the teachers, children and parents

Both the children and the parent helper valued the tactile, playful participatory activities:

As the project was play-focussed it gave a great sense of levelling between grown-ups and children. Exploring together gave the children a sense of ownership, particularly because it was such a tactile experience and kids are so connected with their sense of touch. They spend all day being told not to touch things.¹⁷

The sessions also enabled the children to see themselves, their peers and the world in new ways:

One of the key aspects of the project was its international dimension, which in an inner London state school with diverse communities was a great way to make classmates feel inclusive as they discover the world through clothing. (Ibid)

Using the uniform proved to be an ideal way to connect inwards and outwards to sustainable materials and clothing:

Collaboration was very good as the starting point was the uniform which was the same for 4-year olds as well as the 11-year olds. It generated different points of access to learning from the very basic understanding of the geo-politics of fashion (i.e., where is my uniform from?) to more complex levels of understanding about colonialism and sustainability... I think the project was an excellent way of channelling so many aspects of the curriculum into a really meaningful experience which will have lifelong repercussions. The universality of the school uniform is meant to provide a levelling for education and the easy access to cheap supermarket versions are crucial for many families on low income. I remember my father-in-law did not go to grammar school as his family could not afford the uniform. But in reducing clothing costs the implications are far reaching. (Ibid)

The homework tasks set by the Deputy Headmistress asked the students to look at the labels on their uniform and clothes at home. The pupils co-created an installation which showed the airmiles for items of uniform (figure 8.1, left). The children found this really exciting. The parent helper noted:

I remember distinctly during the project my 8-year-old son calling from the upstairs bathroom "Mummy!" In the pause following I was anticipating the usual cry for toilet paper but instead he shouted, "my underpants are from Bangladesh!" The project was incredibly successful in shifting our attitudes at home as we all began looking at labels and recognising the power of our shopping habits. My teenage daughter now no longer buys new clothes but insists on second hand or what is now termed 'vintage' clothing. (Ibid)

Encouraging children to value the school uniform, and view secondhand uniform differently was one of the main aims of the project.

The biggest change I saw was in attitudes to secondhand clothing. Formerly the lost property clothing, which I had always rummaged through as a parent of frugal upbringing, was seen by my kids to be somewhat dirty and almost embarrassing. After the project it was suddenly given a moral boost so that my kids were quite proud to be wearing recycled uniforms. (Ibid)

Changes in my children at home

How did the activities – the actions – change my children? I sat down and talked to Martha about these projects, using the figures from this chapter to nudge her memory. By working with old uniform on these projects, what did she learn about clothes and fashion? Now 13 years old, she is beginning the teenage years. Had my time in her school left a mark?

It was a long time ago. Thinking back now, it made an impression in my mind, yes. But my main memory was just having fun!... Nowadays I do look at clothes and know that they relate to the state of the planet... but new clothes are so appealing, it cancels out that thought! Clothes give an impression of what I am like as a person. Girls judge each other a lot. Having a sense of fashion is super important... We do talk about the state of the planet in more general terms. We don't care about what's in the materials though!¹⁸

For Martha, and as the millions of viewers on platforms like TikTok, part of the appeal is also in the 'unboxing':

I hate seeing the buyers on TikTok with their cheap fashion stuff. My friends and I talk about why we think brands like Shein are bad. And you know the haulers won't wear most of it. People are having fat arguments in the comments section about it... but I do understand the appeal of the unwrapping. For me, a lot of it is about the ordering of something, the waiting, the arrival, the opening...

Martha explains that it reminds her of the excitement of Christmas, '...that's my childhood!' I had realised this about her some time ago – it's part of the reason we all love to receive something new - so I have tried instead to encourage excitement around secondhand shopping, in local charity shops as well as via apps like Vinted. This suits her at this age, she is more independent and is experimenting with looks at a rapid pace, 'I like thinking about what aesthetic to pick. I like a bit of everything.'

Martha agreed about sustainable fashion and textile consumption issues being introduced at primary school – '...by secondary school it's too late. You don't want to be told anything when you get there, as everyone is a teenager, the majority don't really care about what adults have to say!'

My son, now 16, is definitely less interested in what adults have to say. Since these projects, his views, actions and tastes have changed a great deal. (I just checked on the door frame in the hallway to find he has grown a whopping 53cm since the first school project in 2014 – he has changed physically almost beyond recognition). He is now a London teen, through and through. In 2014 he was watching YouTube and this advertising on a laptop, but since then there has been a massive increase in online adverts and retail and these are now widely available to all via social media (not just fast fashion webshops) on mobile phones.

The materials-led sessions were important in connecting the kids with their clothes and may be even more relevant now in 2022 as so much consumption is actioned digitally. He declined to be interviewed for the chapter – mostly because he is too busy with exams and then being out all the time - but from where I am observing him, he is carefully combining spending money on cool used stuff from Depop with a few new 'luxury' things bought by me for birthdays and Christmas. Clothes are incredibly important to him. He has a girlfriend now – that's playing a big part, I think. He even irons t-shirts before he goes to meet her!

Changes in me and my practice

Re-creation is also considered in terms of how we as design researchers must be ready to change ourselves – our own direction of travel and the focus of our efforts - when working with urgent wicked and complex challenges. My research practice changed significantly during this time. My methods extended to making various toolkits (figures 8.2 and 8.4) and the process for supporting pupils to make upcycled school shirts (figures 8.3 and 8.5). During the same period, I explored ways to work with adults on co-created shirts: I found a way to collaborate with my teenage son, which resulted in the exhibition of the overprinted jacket and framed photograph (Figure 8.5); and I explored new ideas with PhD students and in the consortium workshops with scientists.¹⁹ The workshops were documented and presented at research and teaching events at UAL and formed the basis of a conference keynote. I wrote about the work in blogs and talked about it in multiple podcast interviews.

Re-creation continues in my work through the ongoing upcycling of shirts, with my most recent design work integrating the idea of designing for longevity – for example, a shirt that last 50 years, that changes hands many times²⁰. I am also writing about what things might look like in 2070 – connecting up new materials, technologies and business model innovations into speculative design scenarios (Earley 2020). These visions are playful and fun, focusing on what families might want, as our world changes through climate impacts.

However, I don't think it's that easy to articulate the exact ways the projects changed me – in the ways that are perhaps the most valuable – as these are in the way I am parenting and supporting my teenagers at the moment. They still love clothes. They don't have to be new, and they talk about their needs and desires with me at length. I still hold the purse strings to some extent, but they are buying more often from their own funds. I think the biggest shift is in the way that at home we are all seem to be aware of our clothing, in a more everyday sense. Maybe it has normalised climate change conversations to an extent, bringing it closer to home, into our wardrobes. The parent who helped me with the project concurs, 'I think it differed from other school projects as the work infiltrated the home life with questions raised and conversations had of lives beyond the kids own.'

Conclusion

The three projects in school began in informal ways – through volunteering, and through conversations with my kids - but new research questions emerged that I brought into the academic research community I am part of. Moving between home life and work life - using the common threads of the materiality of the school uniform and playfulness – allowed new insights to emerge which may be used to inform future curriculum developments, at primary schools, secondary schools and beyond. The opportunities explored here may also be useful for engaging fashion consumer more broadly too, beyond the formal education structure. Indeed, EU research projects like shemakes²¹ are already using similar playful approaches to build the skills and confidence of females in the industry, towards more equitable futures.

Design researchers, being playful with materials and making approaches, can reach more diverse - and younger - audiences and uncover new models which might support or even accelerate the evolution of sustainable design activities taking place in art and design rooms in our schools today. A seemingly light touch approach, bringing joy and tapping into flow states, will help us – including both researchers and child participants - to confront, and cope, with the challenges and change that lies ahead.

Acknowledgements

Many thanks: to all the collaborators on these projects, especially Ezio Manzini & Jeremy Till; Bridget Harvey, Rosie Hornbuckle and the other members of Centre for Circular Design; the funders - Mistra Future Fashion, Trash-2-Cash, Chelsea College of Arts, University of the Arts London; staff and students at the primary school in London, especially Jan Free and Christina Chiocca; and my children for being so willing to experiment and learn with me. Trash-2-Cash was funded by the European Union's Horizon 2020 Research and Innovation programme (grant agreement number 626226).

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¹ The Sustainable Design Inspiration Programme (SDI) at H&M in Sweden can be accessed in the project report, <https://ualresearchonline.arts.ac.uk/id/eprint/11281/>

² <http://www.beckyearley.com/weekly-diary/2015/1/12/week-1-setting-my-intention>

³ Fashion Revolution, <http://fashionrevolution.org/>

⁴ 'The arts in schools: 40 years on', <https://www.artsprofessional.co.uk/magazine/356/feature/arts-schools-40-years>

⁵ 'The 7R's for schools' (14.1.19), <https://www.treehugger.com/sustainable-fashion/7-rs-sustainable-fashion.html>

⁶ See for example, the 'Top 100' project, which spanned a 20-year period and remade polyester through different research questions, <http://www.upcyclingtextiles.net/>

⁷ The 2009 AHRC project report can be accessed at https://www.academia.edu/38311773/PROJECT_REPORT_Worn_Again_Rethinking_Recycled_Textiles_2005_2009_

⁸ Read the author's blog posts about these projects at <http://www.beckyearley.com/weekly-diary>

⁹ Play with Purpose conference, <https://events.beds.ac.uk/uniofbeds/detail/343/1583366400000>

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- ¹⁰ Design and Technology Association (DATA) podcast interview, <https://www.data.org.uk/for-education/media-video-and-podcasts/podcasts/in-conversation-with-professor-rebecca-earley/>
- ¹¹ Trash-2-Cash, <https://www.trash2cashproject.eu/>
- ¹² Silence Shirts, <http://www.upcyclingtextiles.net/#/silence-shirts-2017/>
- ¹³ <http://www.beckyearley.com/weekly-diary/2015/4/14/week-17-fashion-revolution>
- ¹⁴ This workshop with kids can be seen in the project film, <https://www.youtube.com/watch?v=dGZw5lRX3Tg>
- ¹⁵ <http://www.beckyearley.com/weekly-diary/2015/4/14/week-17-fashion-revolution>
- ¹⁶ The urban sport of ‘parkour’, <https://en.wikipedia.org/wiki/Parkour>
- ¹⁷ Email exchange between author and parent, 18.7.22
- ¹⁸ Recorded conversation between author and daughter, 15.7.22
- ¹⁹ Examples of shirts co-created with adults in this period include Shavasana Shirt (2015/6) and Silence Shirt (2017), <http://www.upcyclingtextiles.net/>
- ²⁰ Find out more about ‘Service Shirt’ (Earley 2018) from https://issuu.com/ualresearch/docs/shirt.s__digital_hr
- ²¹ <https://www.shemakes.eu/>