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Encouraging Sustainable Citizens of the Future (SchemaPlay 3 of 4)

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SchemaPlay applies to all areas of learning and child development and in this third part of our series on Schemes and Schemas we show how SchemaPlay can be applied to support children in learning and engaging with Sustainable Citizenship through their free flow play. While the learning outcomes in the case-study that we provide here relate directly to Education for Sustainable Citizenship (ESC), Toby's learning journey also shows how his play was contributing significantly to his early literacy and numeracy development. We shouldn't be at all surprised by this, there is no meaningful reason, or any empirical or theoretical justification, for making an arbitrary separation of subjects in the early childhood curriculum. Early Childhood Education for Sustainable Citizenship, as it has been developed in the work of OMEP (World Organisation for Early Childhood Education) and UNESCO (Siraj-Blatchford et al, 2006) aims to improve literacy and numeracy learning outcomes as identified in the *Quality Education* Sustainable Development Goal (SDG4), as well as using it to promote all of the other SDGs. While the SDGs related to *Responsible Consumption, Climate Action, Biodiversity, and Life on Water, Land and Air* may be most obviously relevant to sustainability, crucial among the other SDGs, and with direct relevance to the raising of literacy and numeracy outcomes are *Gender Equality* (SDG5) and *Reduced Inequality* more generally (SDG11). Socio-cultural and economic disadvantages are apparent in the educational achievement of many children at an early age, and a range of studies including the *Effective Practice in Preschool Education* (EPPE) project have shown that high quality play based preschool practice combined with parent engagement has the very real potential to create a level playing field for children's achievement on entry to school (Sylva et al, 2010).

Research in Environmental Education has shown that early experience of the natural environment is really important, but there is some evidence that these experiences do not determine future pro-environmental behaviours on their own (Ewert et al, 2005, Evans et al, 2018). Children who grow up motivated to actively engage in environmental protection are often significantly influenced by the observed actions of enthusiastic adult role models in early childhood.

Toby's journey from transporting to recycling and beyond

Toby was a 'transporter', it was a dominant scheme, and it wasn't at all unusual for us to see him in the playground pushing a child-size shopping trolley. At first glance it looked as though he was just pushing it around in a circle, but on further observation it became clear that Toby was in fact pushing the trolley to different areas of the playground where he could collect a wide variety of items to put into it. After twenty minutes of collecting objects and transporting them in his shopping trolley, he stopped and emptied the contents into a huge pile, and announced in exasperation: **"I can't find one!"** At this point his practitioner stepped in and enquired, **"What are you looking for Toby?"** His response was **"I'm recycling."**

In that moment, his key person wondered if Toby knew what 'recycling' was. She looked at the pile of objects and turned to Toby saying, **"Toby, I have something inside which is about recycling, can I go and get it to show you?"** Toby's face lit up and he nodded and waited for her to return, maintaining a focus on the direction of the classroom door. When his key person returned, she was holding a truck (just like the one pictured here). She explained that when you collect objects to be recycled you have to 'sort' them by the material. **"You put all the plastic bottles in this bin, all the cardboard in this bin and all the tins in this one."** Toby's immediate response was; **"Let's do it!"** His key person suggested that they find some buckets they could sort his pile into. He was clearly interested and already had some prior knowledge to draw upon but it wasn't at all clear what this was. At the end of the day, the practitioner asked his mother if they had been doing any recycling at home. She said that she hadn't yet, but they are about to move home, and perhaps she had used the word. She also advised that they were going to the 'tip' at the weekend and she would take Toby with her.



His practitioner thought about what Toby would see at the recycling centre and set about getting some resources ready for Monday. Toby returned on the Monday morning excited about what he had seen whilst looking out from the sunroof of his mother's car. So, his key person said **"Toby, I have some things here that you might find useful for setting up your own recycling centre."** Later, that day she observed Toby in the role of a recycling operative, recording people's names as they entered the centre and showing them exactly how to sort their items into the correct buckets. Toby was socialising, sorting and grouping (mathematics), and making marks for a purpose. He wasn't forming letters, but his 'writing' had content, and more importantly he saw himself as a 'recycler' and as a 'writer', and he was taking agency in both. His self-belief was such that over the following months his 'writing' which was already meaningful to him had developed to also having symbolic form and his recycling play developed as well. He took agency in informing his peers and parents about the importance of recycling, and he created a poster for the parent area in response to his observations of litter being discarded outside the setting.

The reason this play was so powerful was because his practitioner followed and respected Toby's scheme of transporting, and she enabled this scheme to be played out in sorting the contents from the pile of objects that he had created to the recycling buckets. This introduced him to the new scheme of 'sorting', which was anchored in an activity and a context that he had already shown an understanding of. After the visit he was able to draw upon his figurative knowledge of the recycling centre and the skips/buckets which held different sorted objects. After his visit to the 'tip' he had gained a figurative schema of the recycler, his appearance and also learnt about the role; what the recycling operator did (the schemes/operations that the grown up recycler applied, such as recording people's details as they entered the centre and directing them to the correct bins).

Frank Smith (1994) argued that for a child to learn to read they must first learn what reading actually is and then begin to see themselves in the role, playing the role of those more competent readers they observe around them; become members of the reading 'club'. Toby's recycling capability, and his writing, emerged in the same way.

There are many other significant roles that need to be modelled in early education for sustainable citizenship and much can be achieved by inviting enthusiastic adults into the setting or visiting them outside to see how they are contributing towards the development of a more sustainable world. A wide range of roles are relevant, from individuals committed to town planning, energy conservation and community relations, to local gardening and wildlife enthusiasts and environmental quality campaigners. In many cases, given the seeding of a few well chosen props, the roles will subsequently be played out by the children in their free flow play.

This case study shows how one child learnt a great deal about 'recycling' and about associated care for the environment. As Tina Bruce (1997) and Csikszentmihalyi also found:

"...It is when we act freely, for the sake of the action itself rather than for ulterior motives, that we learn to become more than what we were" (Csikszentmihalyi, 1990, p42).

Many of the other children in the setting learnt about recycling through engaging with Toby in his recycling play and from sharing in the story books and other resources brought in to seed his play. There are YouTube videos showing recycling that can be drawn upon and stories such as Lauren Child's; *Look After Your Planet* (Puffin: Charlie & Lola).

Schemaplay provides a radically child-centred, effective and individualised approach to early childhood education but that doesn't mean that every child is engaged in different activities. In practice, play themes, schemes and schemas may be considered contagious, with Schemaplay maximising the potential for the children's learning and development from their peers. Every learning journey is unique but with care taken to 'seed' the learning environment appropriately the opportunities to provide an education for sustainable citizenship are increased. The recycling truck that fascinated Toby might have inspired a similar journey from a child at first motivated by the **Rotation** of its wheels, and another child may have learnt about recycling motivated by the **Containment** of unused paper and card in the recycled scraps drawer. Rotation and Containment are both powerful schemes for children and SchemaPlay training resources include a 70+ page catalogue of ESC activity ideas providing support to practitioners drawing upon the full range of commonly observed schemes (Brock and Siraj-Blatchford, 2019b).

Key Points:

- Experience in the outdoor environment is really important for young children’s wellbeing but the development of long-term pro-environmental attitudes and behaviours is often supported significantly by adult role models.
- The identification of schemas and schemes supports the practitioner identifying what the child already **knows** and what they can **do**. This helps them in identifying new learning opportunities that are meaningful to the child.
- Socio-dramatic play has a significant role in providing and early childhood education for sustainable citizenship.

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