

Schemas

Schemas are ‘patterns of action’ that children demonstrate when they are exploring the world and trying to find out how things work. Children usually try out the same action on a variety of different objects. They come up with their own working theories about how things work. They continue to test out their theories or ideas. Sometimes they discover exceptions to the rules that they have established with their working theories.

During Chris Athey’s study, she shared theory about schemas with parents and together they gathered information through making observations at home and in a nursery setting. She found that the children involved (and their younger siblings) all ‘made significant gains’ on all tests being used at that time. She also found that these ‘gains were not washed out during the first two years in the primary school’. As a result of

- involving parents and sharing theory with them, as well as
- identifying schemas and providing more content to be assimilated, children and families made long term gains.

Cathy Nutbrown followed up some of Chris Athey’s work and she reflects that

“As babies suck and grasp, they rehearse the early schematic behaviours which foster their earliest learning. Early patterns of behaviour seen in babies become more complex and more numerous, eventually becoming grouped together so that babies and young children do not perform single, isolated behaviours but co-ordinate their actions. Toddlers work hard, collecting a pile of objects in the lap of their carer, walking to and fro, backwards and forwards, bringing one object at a time. They are working on a pattern of behaviour which has a consistent thread running through it.”



Here are some common patterns or schemas we have observed

Trajectory, lines that are moving, like a jump. These lines can be vertical (up/down), horizontal (side to side) or oblique (at an angle). Trajectories can leave a mark or trail, that we refer to as a line. You make the line by making a trajectory movement. Young children often place objects in a line. The line is the 'figurative' aspect of the schema the movement is the 'dynamic' aspect.

Heaping and scattering, placing objects in a pile and spreading or scattering them in space is what some children constantly do. Children who enjoy scattering, may like having lots of small objects to scatter. Sweeping up with a dustpan and brush may interest children who are interested in heaping and scattering. So might throwing bread or corn to the ducks.

Transporting, carrying objects or being carried from one place to another – a buggy or shopping trolley may be a favourite toy. Children who are enjoying transporting will constantly find and gather things to move and ways of moving them around, e.g. bags, buggies, shopping trolleys.

Enveloping, covering themselves, objects or a space – tea towels or scarves or cardboard boxes may be popular play materials.

Enclosing, themselves, toys or space – lego, train track, blocks or cushions may be used when exploring this pattern. Children exploring enclosing often use cushions to surround themselves or like making pens for the farm animals.

Rotating, turning, twisting or rolling themselves or objects – ring games, globes, rolling pins, rollers and wheels might be played with when exploring this pattern.

Connecting, an interest in connecting or joining themselves to objects or objects to each other – construction toys, pegs, paper clips, string, glue, magnets, sellotape, locks and chains might help children exploring this pattern.

Going through a boundary, making themselves or objects go through something and come out of the other side – tunnels, garlic press, postboxes and fax machines might fascinate children exploring this pattern.

On Top, being on top or placing objects on top – climbing equipment or shelves they can reach may help children exploring this pattern. Young children seem to like to be ‘on top’ of the slide or to place things on top of their buildings to embellish them.

Containing, putting themselves, objects or materials into different containers – a variety of bottles, bags and boxes help children to explore this pattern.

Schemas and emotions

Cath Arnold, inspired by Harry’s compulsion to ‘connect’ shortly after his parents separated, carried out a study to explore whether emotional events prompt the investigation of particular schemas (Arnold, 2003; Arnold and the Pen Green Team, 2010).

Over a period of two years, alongside parents and workers, observations were made of eight children and the observations were analysed using ‘schemas’ and ‘attachment’ as theoretical frameworks to understand each child’s experience.

Through this research we discovered that schemas are not necessarily prompted by emotional events, but that there are close links between the exploration of particular schemas.

So what?

We can support children’s natural explorations and interests by providing more content for them to ‘assimilate’ into their current patterns. Young children are intrinsically motivated to explore their environment in particular ways. We can support these explorations by providing resources, stories, trips and language that link with repeated patterns.

