

St. Teresa's Nursery School



“Why do they do that?”



Parent Workshop Schemas & Play

“Schemas are patterns of linked behaviours which the child can generalise and use in a whole variety of different situations. It is best to think of schemas as a cluster of pieces which fit together.” (Bruce, 1996)

**“A schema is a pattern of repeated actions. Clusters of schemas develop onto later concepts.”
(Athey, 2003)**



Schemas are 'patterns of play' that children exhibit when they are exploring the world and trying to find out how things work. Children may try out the same action on a variety of different objects or a wide variety of actions on one object. They come up with their own 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.

As parents and teachers, schemas can help us to think carefully about how and when we encourage children to, following the child's lead and building on what they already know.

Here are some frequently observed schemas, and brief descriptions of what types of things you might see a child doing when he/she is playing schematically.

Envelopment

**“Enveloping, covering or surrounding oneself, an object or space”
(Arnold, 1999)**

- You may see children particularly interested in dens and tunnels
- Children may paint a picture and then paint over it completely, ‘enveloping the paper and picture’
- Children may like dressing up clothes – hats, shoes, cloaks
- Children may like to ‘wrap’ presents

Real life: Sophie from day one in our nursery has been a hands on child. She usually heads straight for the craft table and the messier the activity the better. Sophie loves to immerse her hands in what ever material she is using, paint, glue, water. She also likes to cover the whole page with layers of colour and adds sparkles not only to the page but also herself. She often covers over her work with lots of layers. Sophie also likes to cover herself. She uses the paint/glue brush to cover her hands and arms and then sticks them with sparkles. Outside she loves to ‘hide’ under the coloured scarves shrieking with delight. She responds well to small intimate spaces, sitting on the branch of a tree in the canopy of trees and loves to crawl in the tunnels. Sophie is totally involved in her play, showing concentration and delight.



Trajectory

“Moving in or representing straight lines, arcs or curves” (Arnold, 1999)

- You may see children lining objects up
- Children might like to run back and forth, or jump up and down
- Carry sticks
- Play with swords
- Throwing objects
- Drop objects (for instance from a highchair)

Real life: Kenzie is a happy and smiley little boy who is very enthusiastic about nursery school. At first he would play for prolonged periods at the water tray, pouring water from a height and through the water wheels. At times he would seek out more and more water thrills often going into the bathrooms and placing his hands up against the faucets spraying the water upwards! By adding more apparatus to the water tray Kenzie's interests were re-focused and his play incorporated elaborate 2 and 3 resources together – funnels, pipes, chutes for the water.... It was also evident that Kenzie enjoyed movement of other toys, particularly cars and trains and so to extend play we used the chutes and ramps here too. Kenzie spends extended time setting up simple obstacle courses and chutes from various heights to gain ever increasing trajectories in his play. This is what motivates him to learn.



Enclosure

“Enclosing oneself, an object or space” (Arnold, 1999)

- Children may like to draw or paint shapes that have a beginning and an end point that meet, for example a circle
- Children may like to wear belts and bracelets
- Children may like to build enclosures with Lego, or blocks and put objects inside the enclosure

Real life: Ella - It was obvious from when she first started nursery school that Ella loved to dress up and engage in role playing. Mum reported that she loves Sophia the 1st and so it was no surprise that Ella enjoyed dressing up in princess costumes such as Elsa from Frozen. Through her play Ella particularly enjoyed looking after the dolls. She spends lots of time putting on their clothes and will use lots of blankets to ‘wrap them up’. This is what she enjoys best and will often get very involved layering blankets and placing them around her babies. This is what really motivates her to get involved.

Chloe - Chloe also loves to enclose things. She usually comes into school with a small toy which she carries around with her from one activity to another. She loves to wrap objects with string. She spends ages wrapping willow in ribbons. She even wrapped skipping ropes around her waist and tied a knot, she regularly asks staff to tie her to tree/post (we didn’t!!!) . Most recently she put slinky around her waist. “Look it fixes here” she pointed smiling.. She then enclosed her animal with slinky, “he’s all safe now” she smiled.



Transporting

**“Carrying objects or being carried from one place to another”
(Arnold, 1999)**

- Children may like to carry a bag from one place to another with objects inside the bag
- A child may like to push the buggy with objects (not necessarily a doll, which might indicate role play) from one place to another
- You may see a child carrying volumes of water or sand from one place to another

Real life: Odhran - From the word go Odhran loved to move around the nursery. He loved to remove the sink and post objects into the space. He enjoys taking cups of tea from home corner to staff and children in the room.. He will take dough and put it in the home corner or take resources from the sand and put them in the water. In order to focus this interest in transport more positively, we have created props to encourage his focus. Outside, a wheelbarrow was introduced to move the leaves from one end of the garden to the bag at the other side. He loved to deliver presents and notes as a postman in the class. Odhran loves using the pulleys, ropes and wire for transporting buckets and boxes. When given a focus for his play Odhran demonstrates concentration and more sustained activity.



Rotation

**“Turning, twisting or rolling oneself or objects in the environment around”
(Arnold, 1999)**

- Children may become fascinated by turning the tap on and off
- A child may move around the setting turning knobs on the home corner cooker and microwave
- Some children like to spin the globe

Real life: Feargal - Feargal enjoy all areas of play in nursery but often seeks out rotational stimulus. On the first day Feargal spotted a sand wheel on the shelf and asked to play with it. The sand was too wet so the wheel would not turn, we found some glitter and he was fascinated pouring the glitter and turning the wheel, he was absorbed in this play, repeating the behaviour several times, scooping up the glitter to re-use it. We introduced these wheels to the water play the next day which encouraged him to stay at this activity for longer periods. At the craft table he enjoyed using both hands to create circles in the paint, a pattern her repeated with the chalks outside. Feargal also loves to make large circles in the air with ribbons and streamers outside. When engaged in rotational schemas Feargal demonstrates more sustained and focused play.



Going through a boundary

“Causing oneself or material or an object to go through a boundary and emerge at the other side.”

(Arnold, 1999)

- You may see a child interested in putting objects through a tunnel (the train set is very popular in Growing Together)
- Some children like to crash cars through walls they have built
- Children like to crawl through tunnels
- Some children enjoy using a garlic press and watching the material they have put into it come out of the other side

Real life: Joe, As one of our new comer children Joe is limited in his use of English and so he would spend much of his early days at nursery playing on his own or alongside his peers. Initially Joe appeared to enjoy the blocks but it was not so much the building up but the ‘knocking down’ of the blocks that he would seek out. At times it was the ‘knocking down’ of his peers structures that he would engage in – this did not help build friendships! By supporting Joe fulfil this schematic play at other areas we supported more appropriate and peer-friendly play. Joe enjoys ‘posting’ objects through a ‘shape sorter’ and particularly enjoys using a hammer. The hammer has given focus to his play and instead of knocking down blocks he can hammer in toy shapes! This is what motivates Joe in his play.



Containment

Putting materials inside an object which is capable of containment” (Arnold, 1999)

- Children often like to fill different sized containers with different materials, i.e. sand, water, solid objects etc
- Children may like to contain themselves, by climbing into boxes and cup boards etc
- Later concepts: volume and capacity

Real Life: Initially a quiet child J.J. quickly demonstrated a liking for smaller resources and toys in nursery school. He would often go looking for tiny toys to sort and match. At times he found it hard to move away from a play area once he had completed an activity such as this. We found it really helped J.J. move around from play area to play area if he carried a few of these toys with him.

Eventually J.J. would use boxes in which to carry these toys. Sometimes he will place the toys he has gathered into his tray for safe keeping. Containment is what helps J.J. make sense of the nursery environment and motivates his play from one area to another.



Positional

“Lining up or ordering materials according to size, shape, colour or kind”

Patterns of behaviour for this schema can include interests in where things are, positioning items in lines, rows or by size, different types of lines (vertical or horizontal), walking around things such as sand tray edges or on walls, preferring food to be beside each other and/or laying on floors or under tables.

Real Life: Cruz - Cruz is a quiet happy child, he enjoys being given time and space to position resources in rows or lines. He enjoys handling small items like buttons, lolly sticks, feathers and natural materials such as shells, pebbles, corks and leaves. He uses these opportunities to sort different objects and develop their mathematical understanding about size, grouping, pattern, sequencing and counting. Cruz also loves to position blocks, his work is often symmetrical and can build very intricate structures. He is proud of his achievements and recently discovered his voice and can say loudly and clearly “Look what I’ve made”.



Levels of schema

Schemas operate at different levels:

Sensory motor level – Through bodily senses, actions and movement



Symbolic level – By making objects stand for something else . Aoibheann painted a series of lines of different colours and heights to represent her family.

Functional dependency level – Having the knowledge that if you do something then something else will happen as a result of that.

A child may use their „going through a boundary“ schema at a functional dependency level if they intentionally pour water through the funnel of the water toy to make the water wheel spin around.



Abstract thought level – “Where a child gives a verbal account of an experience in the absence of any material or situational reminder of the original experience.”
(Athey, 1990, P68)

If a child were to retell this experience to his father or mother at home, by saying “I poured the water through the funnel to make the wheel spin”, then you might consider that the child was working at an abstract thought level. He is demonstrating his understanding of what needed to happen to make the wheel spin.

In St. Teresa's Nursery we want our children to be as 'involved' in their play as possible.

What is 'Involvement'?

In this manual, the Leuven Involvement Scale for Young Children (LIS-YC) developed by Professor Ferre Laevers for the EXE Project, Leuven, Belgium (Laevers, 1994), is referred to throughout as the Child Involvement Scale.



Involvement is a quality of human activity:

- which can be recognised by a child's concentration and persistence;
- is characterised by motivation, fascination, an openness to stimuli and an intensity of experience both at the physical and cognitive level, and a deep satisfaction with a strong flow of energy;
- is determined by the 'exploratory' drive and the child's individual developmental needs;
- as a result of Involvement there is evidence to suggest that development occurs. (Laevers, 1993)

One of the most predominant characteristics of Involvement is motivation. An involved child is fascinated and is totally absorbed in the activity, the time passes quickly for the child. An involved child is extremely alert and sensitive to relevant stimuli, releases an immense amount of energy and experiences a wonderful feeling of satisfaction. The source of this satisfaction is an inbuilt desire for the child to gain a better understanding of reality.

Involvement can be distinguished from the intense experiences which are emotionally motivated e.g. tantrums. Involvement does not occur when the activities are too easy or when the task is too demanding. It is situated at the edge of a child's capabilities, or in the "Zone of Proximal Development" (Vygotsky, 1962). There is evidence to suggest that an 'involved' child is gaining a deep, motivated, intense and long term learning experience (Csikszentmihayli, 1979, Laevers, 1994).

The Child Involvement Scale

The Child Involvement Scale consists of two components:

1. A list of signals;
2. The levels of Involvement in a 5 point scale.

The Child Involvement Signals

- **Concentration**

The attention of the child is directed toward the activity. Nothing can distract the child from his/her deep concentration.

- **Energy**

The child invests much effort in the activity and is eager and stimulated. Such energy is often expressed by loud talking, or pressing down hard on the paper. Mental energy can be deduced from facial expressions which reveal 'hard' thinking.

- **Complexity and Creativity**

This signal is shown when a child freely mobilises his cognitive skills and other capabilities in more than routine behaviour. The child involved cannot show more competence - he/she is at his/her very 'best'. Creativity does not mean that original products have to result, but that the child exhibits an individual touch and what she/he does furthers his/her own creative development. The child is at the very edge of his/her capabilities.

- **Facial Expression and Posture**

Nonverbal signs are extremely important in reaching a judgment about Involvement. It is possible to distinguish between 'dreamy empty' eyes and 'intense' eyes. Posture can reveal high concentration or boredom. Even when children are seen only from the back, their posture can be revealing.

- **Persistence**

Persistence is the duration of the concentration at the activity. Children who are really involved do not let go of the activity easily; they want to continue with the satisfaction, flavour and intensity it gives them, and are prepared to put in effort to prolong it. They are not easily distracted by other activities. 'Involved' activity is often more prolonged but it can be dependent on the age and the development of the child.

- **Precision**

Involved children show special care for their work and are attentive to detail. Non-involved children gloss over such detail, it is not so important to them.

- **Reaction time**

Children who are involved are alert and react quickly to stimuli introduced during an activity e.g. children 'fly' to a proposed activity and show prolonged motivation and keenness. (NB. Involvement is more than an initial reaction.)

- **Language**

Children can show that an activity has been important to them by their comments e.g. they ask for the activity repeatedly. They state that they enjoyed it!

- **Satisfaction**

The children display a feeling of satisfaction with their achievements.

NB.

The signals are channels for observer awareness. They are not to be used on a scale basis, instead they are a means of making an overall judgment of the child's Involvement. The observer can use the signals to build an image of the child. By trying to establish how the child really feels, and by trying to become that child, the level of Involvement can be ascertained.

These signals can be exhibited in different ways by different children. Individual children need to be observed and their signals recognised.

Child Involvement Scale

(to be read in conjunction with the signals for Involvement)

Level 1. Low Activity

Activity at this level can be simple, stereotypic, repetitive and passive. The child is absent and displays no energy. There is an absence of cognitive demand. The child characteristically may stare into space.

N.B. This may be a sign of inner concentration.

Level 2. A Frequently Interrupted Activity

The child is engaged in an activity but half of the observed period includes moments of non-activity, in which the child is not concentrating and is staring into space. There may be frequent interruptions in the child's concentration, but his/her Involvement is not enough to return to the activity.

Level 3. Mainly Continuous Activity

The child is busy at an activity but it is at a routine level and the real signals for Involvement are missing. There is some progress but energy is lacking and concentration is at a routine level. The child can be easily distracted.

Level 4. Continuous Activity with Intense Moments

The child's activity has intense moments during which activities at Level 3 can come to have special meaning. Level 4 is reserved for the kind of activity seen in those intense moments, and can be deduced from the 'Involvement signals'. This level of activity is resumed after interruptions. Stimuli, from the surrounding environment, however attractive cannot seduce the child away from the activity.

Level 5. Sustained Intense Activity

The child shows continuous and intense activity revealing the greatest Involvement. In the observed period not all the signals for Involvement need be there, but the essential ones must be present: concentration, creativity, energy and persistence. This intensity must be present for almost all the observation period.



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