

Geoff Hannan

Developing Early Years and KSI Consultancy and Training
Package

How Children Learn

In my Play-Based Learning workshops I present a quick guided tour of what we know about how children learn! A good way of exploring previous knowledge is by providing a visual representation of it and asking participants to examine it (good with children, as well)....

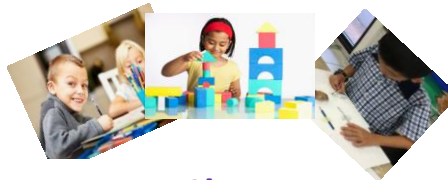
The highlights are from other training.

Effective Learning



USE

Practise Consolidate Extend



Show

ARTICULATE

Explain Teach **Use Learning Partners**
Visualise Create

Write Draw Paint Model Build Act Perform Dance Sing

Read-Think-Communicate
Think-Communicate-Do  **Think-Communicate-Write**
Plan-Do-Review

CONNECT

Create Schemas
Categorise
Conceptualise

Go for 3/5:

- 5 subdivisions of something
- 5 steps for doing something
- 5 facts about something
- 5 good things, 5 bad things,
- 5 unknown things about something

Use Descriptive-Reflective-Speculative Sequencing



ACQUIRE

Skills Facts Understandings

Question Answer

See Hear Touch Taste Smell Feel



Experience  **Play**  Imagination

Learning

Acquisition

We learn first and foremost through the six senses and their creative application.

Connection

We then learn to connect through the tool of schema creation: a pattern of repeated actions-Trajectory Transporting Rotation Connecting Enclosing Positioning Enveloping Orientation- which later form clusters and evolve into concepts- categorising is an important part of concept

Articulation

Is important to consolidate the schema (the how and the what) and the concept (the why).

Usage

Consolidates and extends skills, facts and understandings (the what, the how and the why)
Simultaneously emotional schemas are being formed...

Memory and Recall

Broadly fall into three categories:

- Procedural: following steps and using sequences- females are likely to be better at this than males
- Semantic: recall of words and factual information- males are likely to be a little better and a lot more interested in the latter!
- Episodic: autobiographical recall of events and emotional connections to these events. Also contextual recall and understanding in learning- females are likely to be better and more accurate.

Curriculum Intent

- The three types of memory are useful categories to delineate curriculum content.
- Use low stakes testing and quizzing to aid remembering of previous content
- Children need to recall and use information a minimum of four times for it to 'stick'.

Play-Based Learning and Peer Learning Pedagogy

Key impact assessment points are numbered 1-6

Learning through play and Peer Learning develop the core skills of oracy, literacy and numeracy. They also promote positive attitudes to school and to learning itself. They provide opportunities to learn in a practical and child-centred way where children and young people participate at their own pace; driven by their own curiosity, interests, needs and motivations.

Learning through play and Peer Learning stimulate children's imagination and provide rich and varied contexts for developing skills such as observing, investigating, interpreting, predicting, organising, recording, reviewing, problem solving, and decision making.

Learning through play and Peer Learning provide rich learning opportunities to develop skills, facts and understandings of the world spanning all curriculum subjects. Learning through play and Peer Learning develop children's self-esteem, confidence, resilience and independence.

Play-Based and Peer Learning are not about just the end product or the filling of time. They aren't about something you do when you are not working or about just providing practical activities in the classroom. They aren't about worksheets. They aren't about 'just playing.' They aren't about something you just do in nursery and primary schools. **Play-Based and Peer Learning** are fundamental to learning and life skills development **and good mental health**.

1 In Play-Based Learning and Peer Learning **children and young people learn to manage information** through accessing, selecting, communicating, integrating and recording. They plan and set goals, break down tasks into sub-tasks and use and apply the ideas of others. They ask focused questions. They locate information which they select, classify, compare, contrast and evaluate. In Play-Based and Peer Learning children and young people learn to select the most appropriate methods to control tasks and information, form hypotheses and manage representing, collating and recording. They communicate and value their successes and communicate them with a sense of purpose and express and secure their need for personal affirmation with a sense of audience and interdependency.

2 In Play-Based Learning and Peer Learning **children and young people think, solve problems and make decisions**. They engage and cope with challenges. They sequence, order, classify and compare. They test their ideas and predictions. They seek evidence and establish causal relationships. They expand and explain methodologies, give opinions, explore alternative solutions and evaluate outcomes. In Play-Based and Peer Learning children and young people make holistic connections between different learning contexts.

3 In Play-Based Learning and Peer Learning **children express and young people and develop their creativity** by imagining, generating ideas and inventing. They take risks in exploring and capitalising upon knowledge and understandings. Children seek out questions to answer and problems to solve. They experiment with and personalise ideas and concepts. They turn these ideas and concepts into concrete enactments, actions and outcomes. In Play-Based and Peer Learning children optimise and overcome their potential for mistake and failure; facilitating the development of self-esteem and resilience.

4 In Play-Based Learning and Peer Learning **children and young people learn to self-manage**. They become aware of and manage their strengths and their weaknesses: building on the former and overcoming the latter. They develop interests and extend them. They organise and plan how to undertake tasks. They set personal goals and targets and learn to analyse and evaluate them. They sustain attention and persist with tasks. They seek help where needed. In Play-Based Learning and Peer Learning children and young people learn how to manage their own time and manage their own behaviours in a wide range of situations.

5 In Play-Based Learning and Peer Learning **children and young people learn to work with others**. They learn the core skills for collaboration: being sensitive to the feelings of others and being fair and responsible. They learn to listen actively and share opinions. They learn how to develop routines for taking turns and co-operating. They learn how to give and respond to feedback and how their words and actions impact on others. In Play-Based Learning and Peer Learning children and young people learn how to respect the views of others, how to reach agreement and compromise and how to get on with one-other.

6 Play-Based Learning and Peer Learning **provides opportunities for teachers and children to plan together**. They provide a stimulus for both to use resources in challenging and imaginative way. Play-Based and Peer Learning build skills of facilitation and provide teachers with clear opportunities to observe, assess and record, and apply their expertise to the needs of individual children and young people and groups of children and young people.

Children learn most and best through play. What will your classroom become today? 'With your partner today your task is to learn all you can about..... and tell us all about it at the end of the lesson.



Play-Based Learning: Early Years

Geoff Hannan: (From Deep-Dive Analysis and Key Training Sessions)

In classroom observations Geoff looks for the following:

Learning Objectives

Clear
Communicated
Time given to plan-do-review
Time given for children to reflect
Potentialisation*1

Outdoor Areas/Classroom

Variety
Richness of resources
Supporting resources/secondary materials*2
Sequential introduction of resources to consolidate and extend learning experience
Continuous Provision

Supporting Core Learning Domains:

Physical

Social

Proximal learning:

Adult
Peer

Emotional:

Resilience
Perseverance
Risk-taking
Conflict resolution

Mathematical:

Number
Shape
Volume
Pattern Recognition

Linguistic:

Language
Literacy

Supporting Schematics:*3

Trajectory
Rotational
Opening/Closing
Enclosing/Enveloping
Containing
Orientation
Transporting
Connecting
Positioning
Transforming
Pretending

1. Potentialisation (In, for example, constructional play) Teacher has analysed the learning potential of the activity...
Schematics: shapes, size, volume stability etc.
Properties of materials
Investigating cause and effect
Noticing change
Speculating and drawing conclusions
Seeing patterns
Generating theories

Role play potential

How can experience trigger language, number operations, geometry, vocabulary, dialogue, learning articulation?

Teacher structures time for reflection, plan-do-review etc. sharing in pairs and small groups to the rest of the class.

2. Use of Secondary Material

Example of planning and use of secondary materials for conceptual extension:

A variety of small objects and collage materials like straws, pipe cleaners, bottle caps, and recyclables, as well as pieces of clay and tape for holding things together are invaluable in supporting conceptual understanding; say, for example, in construction of three-dimensional representations of children's primary constructions. By using secondary materials to represent the same structures children encounter new challenges, gain new information about building materials and their properties, and generate new ideas about how to handle them.

*3. Schematics in Play-Based Learning

Why do children wrap themselves up in layers of clothes; line up rows and rows of similar objects; develop fascinations with throwing or hiding?

Repetitive behaviour like this is known as schematic behaviour and while it may seem odd, it is in fact a highly important and dynamic learning mechanism.

Through repeated, sometimes compulsive, actions, children are discovering the underlying structure of the world around them: if this happens this way, does it also happen that way?

Being able to recognise schemas when they are exhibited enables practitioners to extend a child's learning by matching curriculum content to a child's individual interests. Because the child is deeply interested in what they are doing they will be highly involved and motivated and this will optimise progress in their learning. This learning will be at their own pace and within the parameters of their personal cognitive development needs.

Teacher Time

Teaching to Doing Ratio (1:5 except phonics)

Descriptive-Reflective-Speculative Sequencing

Observes and captures

Supporting behaviours

without teaching

supporting by teaching

Use of questioning

Directed to individuals

No hands

Thinking Time

Response Time

Children asking questions

Extending

Use of planned resources and inputs

to extend schema at child's/children's own pace

Conceptual extension

Play Activities Used in Phonics*4

Using schematics (as above)

Noise

Song

Dance

Movement

Play Activities Used in Numeracy

Especially concrete number, spatial play and over-learning

Play Activities in literacy

Mark making play

Story making/ role play/mood play etc.

Gender *5

Awareness

Pro-activity

***4 Effective use of a wide range of hooks and consolidating play in phonics**

E.G.

Sound starters

Rhyme matches quiet and loud

Nursery rhyme sound effects/movements

Matching pictures that start with same sound

Animal noises/actions

Buried treasure, e.g. Blending sounds

Time limit games/challenges using flashcards

Matching pictures to letters/sounds

Matching pictures e.g. blend and then find

Listen to phoneme and choose grapheme to fit

Repair games: e.g. fix the rocket by practising segmenting

Finding digraphs in sentences

Play around with words to make new sentences

Etc.

***5 Core Gender Strategies**

See below for more specialist understandings

Especially Boys

Chunk learning

Teach and use steps

Scaffold thinking and writing

Require reflective articulation of learning

Use Think-Communicate-Write

Use Read-Think-Communicate

Reward especially effort and pro-social behaviours

Work a third of the time as Learning Partner with girl

Especially Girls

Encourage experiential trial and error learning

Encourage guess and test

Encourage speculative speculation

Ensure equal participation in the classroom

Encourage assertive behaviours

Check for sexual harassment

Work a third of the time as Learning Partner with boy

Gender in the Early Years: Additional Notes and Ideas

LIKELY DIFFERENCES Personal, Social and Emotional Development Perseverance- Free selection +m Adult selection +f Concentration+f Attention Maintenance+m when motivated. Forming of Relationships- Peers through action led activity +m organisational lead +f Adults- through role model and doing+m- through talking+f

DIRECTED- ESPECIALLY BOY Time and reward attention Reward effort Concentration games such as statues Copying games Sequencing games "Concentration Glasses" Copying pictures "Snap shots" (freeze techniques) Led gentle touching and stroking Trust Activities in pair/group progressions Pair shape-making Pair musical chairs Pair in story-making Speaking together/role pairs Co-operation rewards •

DIRECTED- ESPECIALLY GIRL Create complicated tasks such as taking old computers/machines to bits Body bridges/stepping stones Imaginary carrying

FREE FLOW- BOY Specify outdoor and indoor play areas some of the time and praise maintaining activity there

FREE FLOW- GIRL Building pictures- models out of sand etc.

LIKELY DIFFERENCES Communication, Language and Literacy Attention to what others say +f Initiation of communication +f Conflict resolution through language +f Attentive listening +f Active responding +f Use talk to create play +f especially story making-subject specific +f people Interest in text +f Reflective Skills development +f Interest in illustration +m Interest in shape/rotations +m speculative skills development +m

DIRECTED- BOY Question and Answer Teacher in role and children inventing questions Listen-and-copy story making games Teacher positioning during reading so children can see text as teacher reads Individual letter projection on whiteboard for writing over Led computer programmes projection programmes Facilitate mark-making

DIRECTED- GIRL Guessing games "Imaginary Walks" with details already laid out for exploration and question

FREE FLOW- BOY Video loops of children talking to camera /giving instructions to be followed One-at-a-time activities to develop taking turns (monitored for behaviour checks and rewards)... script interventions (A say this, B say that) "Answer-phone" and computer messages (response and record) Small enclosed and especially roofed areas with props (telephones etc) Word building areas (name, place, age) Write-and-stick walls

Text projected on whiteboards for drawing over (start with child's name)

FREE FLOW- GIRL Pattern play

LIKELY DIFFERENCES Mathematical Linear +f Symbolic +m emerging

DIRECTED-BOY Round robins with spoken and held numbers Number shape creation with bodies, plus adding, pairing Story number books Story making in sequence with numbers

DIRECTED-GIRL Clock play, led Rhythm games, music-making Memory and counting games Mix and match odds and evens Counting challenges in Groups

FREE FLOW-BOY Hop scotch Skipping games Stepping stones with changing sequences (facilitate through challenge)

Copying projected numbers Number sheets for colouring and copying "Three in a box" Jumble and sort numbers

Number building blocks

FREE FLOW-GIRL ICT Number games Clock play

LIKELY DIFFERENCES Knowledge and Understanding -Emerging gender preferences- +m activity, hunting, aggression +f relationships, home-making

DIRECTED-BOY Treasure hunts Detective games Come up and point Geography and map-making activities Dressing up Time Lines Google Earth Real story time Themed role plays in pairs groups I SPY DIRECTED GIRL Human bridges, circles, triangles etc Sound sequences Making music

FREE FLOW-BOY Toy cars, trains, trucks, etc but add story making and questioning Toy swords, wands, super hero...with teacher facilitation... slow-mo play- teach care and consideration etc

FREE FLOW-GIRL Balancing activities Building activities encourage Goo play fire fighters etc

LIKELY DIFFERENCES Physical Development Space +m Hand to eye +m Co-ordination large muscle groups +m Manual skills, precision co-ordination +f Hearing high frequency +f Male eye= movement focus

DIRECTED-BOY Blindfold challenges Listening for sounds Let's build together Being small, being big Patting

DIRECTED-GIRL throwing catching kicking

FREE FLOW- BOY Cranes and picking up activities Holding and feeling areas Big pencils and pens Threading challenges

GIRL Small ball play, bean bag netball Bowling and target games

LIKELY DIFFERENCES Creative- Using objects representationally +m Verbal +f

DIRECTED-BOY Big sheet painting Story telling using objects Making music using objects Words with junk Puppet shows

DIRECTED-GIRL Making puppets Making landscapes

FREE FLOW-BOY Puppets

FREE FLOW=GIRL Junk play Cardboard boxes Newspapers Rags Plastic bottles etc Painting junk Making costumes Rubbish music-making

Aiding the Development of Positive Emotional Schemas

Emotional Schemas

- An Emotional Schema is a strongly held belief that a person has about himself or herself, about other people, or about the world in general and the belief can be either positive or negative in nature. In all cases, the schema is accepted as being true, even if it's negative and causes harm or difficulties in the person's life. The theme of these problems often remains the same over time and repeats itself in different types of relationships, including romantic involvements, school/work relationships, and friendships.
- Most often, negative schemas develop at an early age. Children hold beliefs about themselves that they learn from their parents and other adults. For example, children who hear judgmental messages such as "You're lazy" or "You're stupid" or you are "Badly behaved" will begin to think that these things are true and grow up to be adults who think they are lazy, stupid, bad or generally incompetent.
- Similarly, children who are abused, mistreated, or criticized often think they've done something sufficiently bad to deserve their mistreatment—regardless of the fact that none of these cruel actions or unkind comments and actions is deserved. Nevertheless, these children often think badly of themselves as a result and may develop the belief that everyone will mistreat them.

The Emotional Schemas

1. **Stability/ abandonment or instability:** children who have a negative schema might be constantly afraid of relationships ending. They may believe that their relationships will end easily due to fights, breakups, divorces, affairs, or death. Or they may believe that anyone who would want them must be physically, mentally, or emotionally unhealthy, and will therefore be unable to take care of them. **If you feel that a child or young person you work with has issues connected with stability then being unconditional and consistent in the kindness and respect you show them might do much to aid the development of a positive schema.**
2. **Trustfulness / mistrust or abuse:** children who have a negative schema may be constantly afraid of being physically or emotionally hurt by other people, through direct physical force, deceptions, or lies. They might even believe that other people do this to harm them on purpose. **Show your trust and be sure to keep your promises especially to children at risk of developing a negative schema.**
3. **Emotional Supportedness/ deprivation:** children with a negative schema can believe that they will never get the care and support they need. **Offer continuing support to children at risk of developing a negative schema and consistently remind them that you are there for them.**
4. **Wholeness/ defectiveness or shame:** children with a negative schema can believe that they are physically, emotionally, or psychologically defective, and therefore unworthy of being loved or cared for by anyone. **Express your liking of those with potentially negative schemas and ensure they are given lots of opportunities to articulate their personal qualities.**
5. **Sociability/ social isolation or alienation:** children with a negative schema might believe that they are so different from everyone else in the world that they will never be able to fit in or be accepted. **Encourage those with lower social competencies or confidence to work with others and reward them when they do.**
6. **Independence / dependence or incompetence:** children with a negative schema often believe that they are incapable or not smart enough to do anything without great assistance from other people. **Show those with negative schemas that they are able to succeed in tasks on their own using encouragement and reward.**
7. **Independence/ enmeshment or undeveloped self:** children with a negative schema can believe that they can't live or enjoy life without the constant emotional support of someone else, usually someone of great importance in their life, like a parent or a friend. In some instances, the child doesn't even feel whole without that other person close by.

Delegate special tasks to those with poor schemas e.g. being a mentor to younger children or taking responsible for a specific function in the classroom.

8. **Inner Strength/ vulnerability to harm or illness:** children with a negative schema can believe that they are exceptionally at risk of getting hurt or contracting some type of disease or illness. **Remind those with negative schemas of times when they didn't get hurt or ill as they expected to.**
9. **Successfulness/ a failure:** children with a negative schema might believe that they have never succeeded, nor can they ever succeed, no matter what the task. **Remind those with a negative schema of the time they succeeded when they didn't expect to succeed.**
10. **Commonality/ entitlement or grandiosity:** children with a negative schema might believe that they are more important than others and therefore more deserving of privileges and rewards not given to others. People with this schema may seek fame, power, or control at the expense of the safety and needs of others. **Help those with a potentially negative schema to engage in activities and opportunities to develop empathy, for example helping a charitable cause.**
11. **Self Controlling/ insufficient self-control or self-discipline:** children with a negative schema might be unable to tolerate any type of discomfort or setback when trying to achieve something and so they simply give up. Alternatively, they may be unable to control their emotional outbursts and impulses. **Those with a negative schema might be targeted to gain rewards through controlling their anger or temper and be encouraged to overcome a sense of failure by taking small steps to success.**
12. **Self Assertiveness/ subjugation:** children with a negative schema might feel they are constantly forced to give up their own needs by others who threaten to do something or withhold something if they don't comply with their wishes. People with this schema willingly give up their own needs in order to meet someone else's needs. Often, they feel guilty and are afraid that if they don't meet the needs of the other person that person will suffer in some way or will not like them. **Teach self-assertion skills and practise the ability to say 'no'.**
13. **Self-assuredness/ affirmation seeking or recognition seeking:** children with a negative schema may be constantly trying to gain the appreciation and support of others. As a result, they fail to develop a sense of valid self-worth because all of their value is dependent on what other people think of them. **Encourage those at risk of a negative schema to articulate their independent qualities and task with opportunities to enact and excel in these areas.**
14. **Positivity/ negativity or pessimism:** children with a negative schema may only pay attention to the sad and difficult parts of life, such as troubles, grief, pain, destruction, and the loss of life. They also fail to see, or purposely ignore, anything good that might be taking place. **Task children to recall and articulate the good things in their lives and encourage them to celebrate the positives.**