

Developmental Play



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1

What we will cover

Play

Development of pretend play

Play and abilities

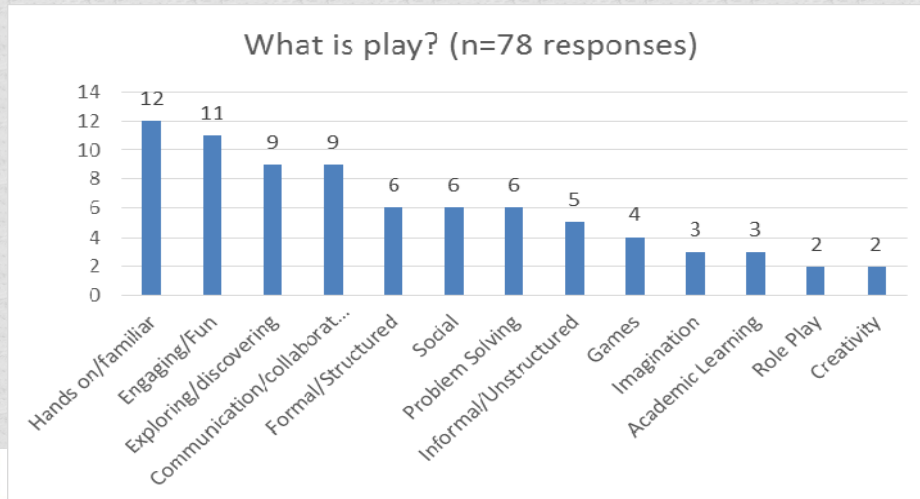


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2

What a group of primary school teachers told us about play



Types of play



Gross Motor



Fine Motor



Visual-Perceptual



Auditory Play



Sensory Motor



Pretend

Pretend play

Substitution of one object for another

Attribute a property to an object

Substitution of a symbolic action to refer to an absent object or action

- A truck trailer can be a boat (substitution)
- A truck can run out of petrol or the doll goes to sleep (attribution of a property)
- The wave of an arm can represent a doorway (reference to an absent object)



Impose meaning on objects, toys, actions



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5

Pretend Play

Is a unique type of play

Contains all the characteristics of play

Falls into the categories of dramatic and constructive, as well as functional use of objects

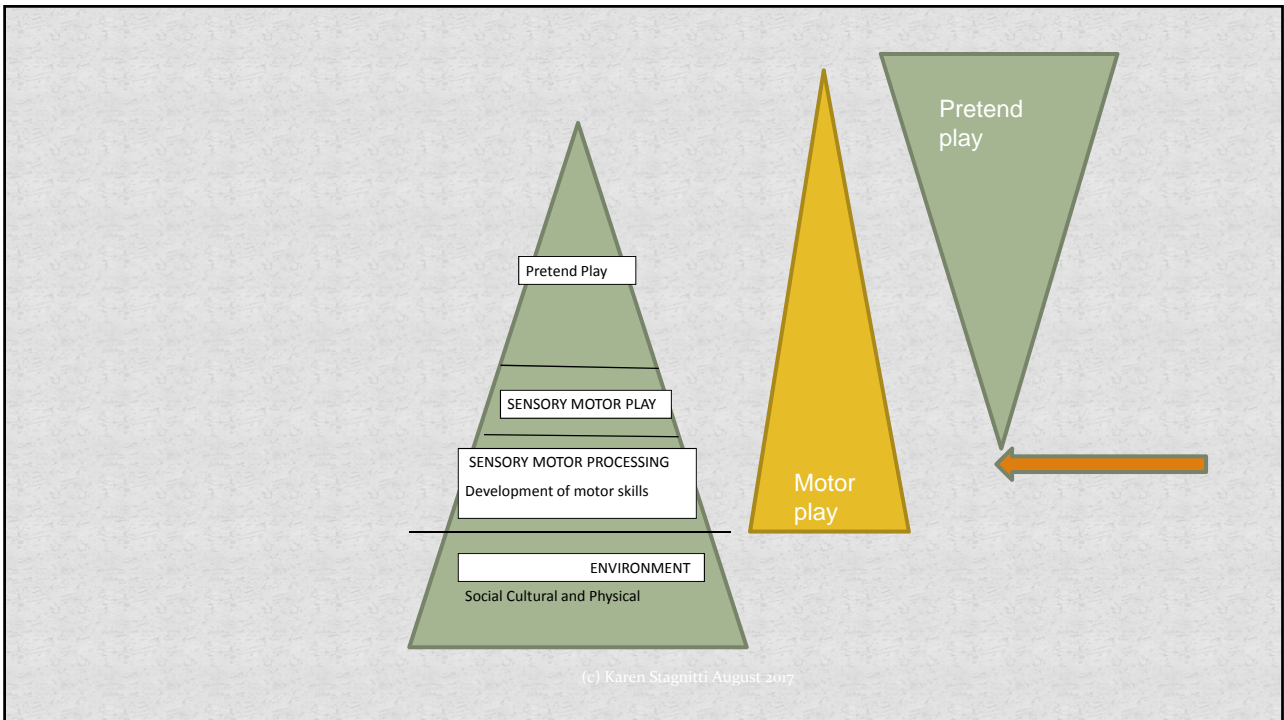
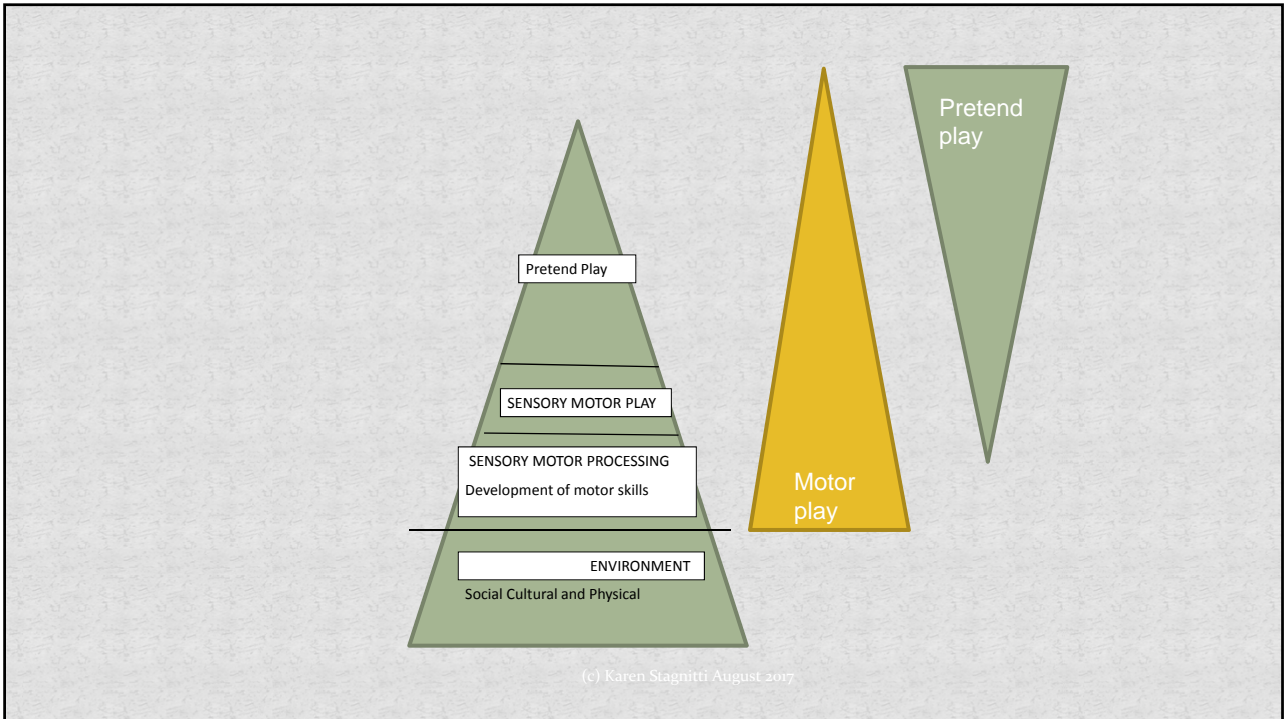
No literature disagrees that pretend play is not play

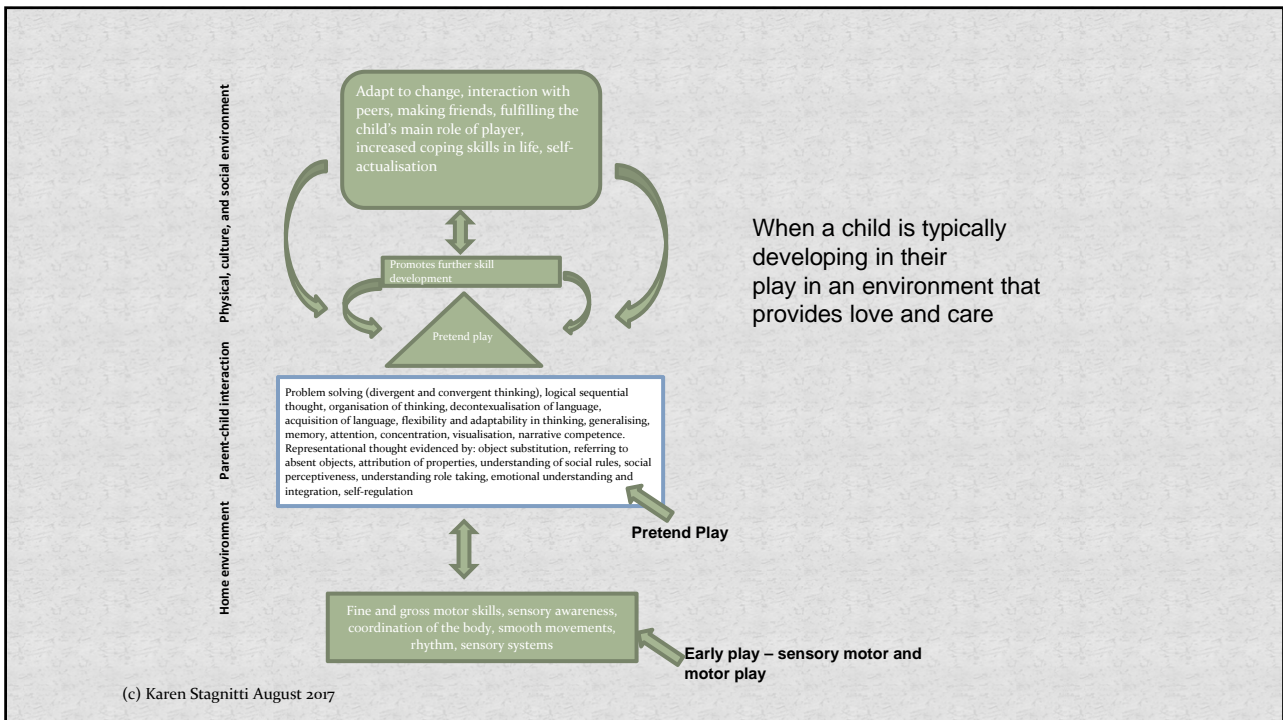


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6





Stories in play

- About the body
- Includes activities in the home
- Inside and outside the home
- Fictional stories
- Stories with sub-plots
- Make anything up
- **2 years:** Children can tell a story about themselves. They tell stories before they can read.
- **2-3 years:** Children attempt fictional storytelling
- **3 years:** Children begin to develop narrative ability
- **Preschoolers:** Children can tell stories and their storytelling can be enhanced.

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Sequences in play actions

- Single actions
- Repetitive – more than one recipient
- Simple logical sequence
- Increases = more time concentrating and increased attention
- Sequences that go over 2-3 days
- Sequences that go over 2-3 weeks
- **3 – 5 years:** Children move from description of objects and events, to temporal sequencing of actions relevant to solving a problem, to use of goal-directed actions.

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Object substitution

- Manipulate objects
- Only use real objects for what they are
- Use objects with physical similarities
- Use more abstract objects eg, make play scenes
- Use body parts, imaginary objects
- Use any object for anything – no physical similarity
- Use language to explain the objects' meaning

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Characters in play

- Hold figurine in correct position
- Becomes 'alive'
- Child imposes emotions
- Character is separate from the child
- By **at least 3 years** of age children understand that the play is occurring within a 'context-specific normative structure of joint pretence' or 'we-intentionality' (Rakoczy, 2008a, 2008b, pp. 510, 511)
- In other words, children show understanding of mental states of others through their pretend play.

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Characters in play

- Child imposes lifestyle
- Character is completely separate
- By **preschool age** children understand
 - people may show different emotions to what they really feel
 - emotions are influenced by mood or past events.
 - others can have different beliefs to themselves,
 - can sustain a conversation with peers, and show ability to negotiate and cooperate in play, (Hughes & Leekham, 2004; Stagnitti, 2007).

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Social and role play

- Imitate what they see
- Imitate others characteristics
- Associative play, more roles
- Play one role for a while but can change (roles can be people or animals)
- Co-operating and negotiating
- Play one role for whole game

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Social pretend play

- Children create shared meaning in the play through conversing with each other about the play.
- Complex social pretend play places greater demands on children to coordinate their roles with other players and jointly plan and maintain the play (Whitebread & O'Sullivan, 2012)
- Complex social play is characterised by sustained reciprocal dialogue and reciprocal action between peers. This places intellectual demands on children (Whitebread & O'Sullivan, 2012)

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Social, play and narrative

- Children create narratives in their pretend play which increase in complexity
-
- Children create joint shared meanings in their pretend play by:
 - conversational exchanges which include extending on the ideas of others,
 - introducing a new idea,
 - adding in new props
 - showing acceptance or rejection of peers' ideas through verbal and non-verbal communication (Whittington & Floyd, 2009).
- These skills embedded in social pretend play seem to promote the type of intentional learning (Whitebread, 2010) which requires children to monitor and control their thinking and behaviour.
- In addition children need to understand and regulate co-players' thinking so that collective pretence can continue and be maintained

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So by prep and grade 1...

- They can play out an idea for 2 – 3 weeks
- They can negotiate groups
- They can use their language to explain and describe
- They understand cause and effect within a story
- They can problem solve
- They can abstract objects and impose meanings
- They can understand others have another point of view
- They can characterise roles of people they see in their society

School age:

Majority of children possess a basic repertoire of narrative abilities.

Children understand multiple mental states such as

moral dilemmas,

ambiguity of truths,

beliefs about beliefs,

bluffing,

influence of bias on beliefs (Hughes & Leekham, 2004).

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| Play scripts | Sequences of play action | Object substitution | Social | Role Play | Doll/Teddy |
|--|---|---|---------------------------------------|-------------------------------------|--|
| Body | 1 pretend action | Functional use of objects | Imitates a pretend action | Carries out actions previously seen | 1 action |
| in home | 2-3 similar actions. illogical | similar looking object | Imitates object substitution | As above | Child sits doll in chair |
| in and out of the home | simple, logical actions | 1 object = 2 functions | Child asks for objects needed in play | imitates others | The doll can do things |
| personally experienced but less frequent life events | Detailed logical actions. | 1 object = many uses | Parallel play. | Short | Doll wakes up. an abstract doll |
| Themes include TV, books, computer games etc. | Child uses multiple logical play actions | uses blocks to build a wall. | Associative play | Role play is fluid | a doll's house. |
| As Above | a play strategy | Child uses body parts and imaginary objects | As above | As above | Doll is a character – good, bad, naughty |
| Sub-plots occur in play | a planned storyline | use an object with a distinct function | Cooperative, negotiate | several roles | own character |
| anything at all. | sequences are pre-planned organised, logical and have sub-plots. Complex storylines | language | As Above | same role | Doll live its own life |

Symbolic play

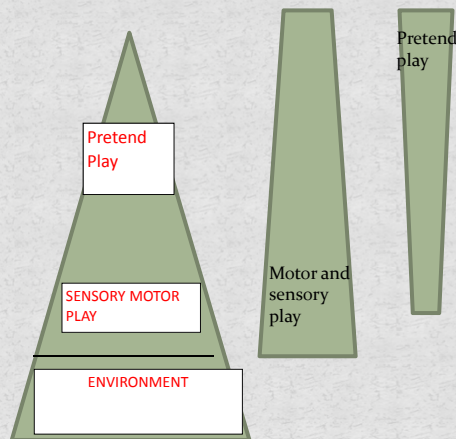
Construction play

Socio-dramatic Or Dramatic play

Role play

Thematic Fantastic play

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Some characteristics of children who are poor at play

- Children who do not interact with their peers. For example, they are always to the side or by themselves.
- Children who do not initiate their own activities, always wait for guidance, or always need guidance during activities.
- Children who seem to be 'concrete' in their thinking.
- Children who cope better in structured situations. That is, they cope when given a structured activity like a puzzle but they do not cope when they have to play by themselves (for example, in a sandpit).
- Children who destroy other children's play scenes or games.
- Children whose play ALWAYS ends in everything dies.

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Some characteristics of children who are poor at play

- Children who have poor language
- Children who are unorganised
- Children whose story comprehension is below their age level
- Children who find it difficult to write a story
- Children who give minimal answers to questions on a text
- Children who find it difficult to 'predict' what might happen in a story
- Children who have difficulty understanding the meaning of what they are reading

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Pretend play and abilities

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Learning

Preschool children with difficulty in sequencing play actions and object substitution were children who teachers and parents had concerns over their pre-academic ability.

- Sensitivity .82
- 8 out of 10 children accurately identified

(Stagnitti, K., Unsworth, C. A. & Rodger, S. (2000). Development of an assessment to identify play behaviours that discriminate between the play of typical preschoolers and preschoolers with pre-academic problems. *Canadian Journal of Occupational Therapy*, 67, 291-303.)

Children in low SES areas who attend school have lower play ability and lower language

(Reynolds, E., Stagnitti, K. & Kidd, E. (2011). Play, language and social skills of children aged 4-6 years attending a play based curriculum school and a traditionally structured classroom curriculum school in low socio-economic areas. *Australian Journal of Early Childhood*, 36 (4), 120-130.)

Body awareness and playing on the floor overlap $r = .62$

(Roberts, Brown, Bupti, Stagnitti (American Journal of Occupational Therapy 72 (1))

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Narrative

Story telling

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Why narrative is important

- Narratives effect on school performance when school success is measured by reading achievement
- Narratives are a universal construct
- A gap between a child's pre-existing narrative skills and discourse requirements of school results in that child having greater difficulty understanding and meeting teacher's demands
- Children who do not have skills in narrative come to school at risk for failure in classroom discourse.

Pretend Play and Narrative Development

- Understanding narrative intrinsically relates to a child's ability to forward think or 'predict' what will happen. That is, children understand what the character's plans are and what is going to happen.
- Problem solving in the narrative gives children exposure to divergent and convergent problem solving skills.

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Study

Two schools: one with a play based curriculum and one with traditional curriculum

Children were from poorer areas

All children tested for quality of play and narrative re-tell in February and August

57 children in total

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Play based curriculum



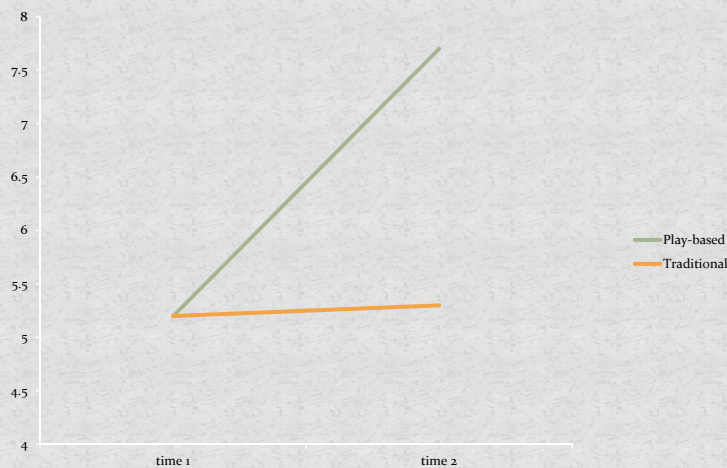
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Traditional Curriculum



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Comparison of narrative by school



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Teachers reported

- Significant differences in
 - How self-organised the children were (at the play based curriculum school)
 - How socially more connected they were (at the play based curriculum school)
 - Increased narrative re-tell ability (in the play based curriculum)

Pretend play and the brain

Stagnitti, K. (2017). A growing brain – a growing imagination. In E. Prendiville & J. Howard (Eds). *Creative Psychotherapy. Applying the principles of neurobiology to play and expressive arts-based practice* (pp. 185-200). Oxon: Routledge.

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Pretend play is thinking play

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Pretend play is limbic-cortex

- Symbolism, pretence and social interaction and these abilities require engagement of the limbic and cortical systems in the brain.
- Play at the limbic and cortical level encourages abstract thought and storytelling, drama and theatre (Perry, 2006). Pretend play is about imposing meaning and storytelling.
- In children aged six to eight years, frontal activity in the brain (cortical area) was found during both pretend play reasoning and false-belief reasoning. In children, pretend play actions were related to intention (Kuhn-Popp et al., 2013).
- Studies with children and adults have confirmed that there is limbic-cortical activation when participants are engaged in watching and thinking about pretend play scenarios and this activation is associated with theory of mind (social cognition), narrative (language) and self-regulation.

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Pretend play – brain lights up (Whitehead et al., 2009)

- Medial prefrontal cortex (ToMM, mentalising, emotion)
- Temporo-parietal junction
- Inferior frontal gyrus
- Posterior superior temporal sulcus (ToMM, emotional gestures)
- Anterior medial prefrontal cortex
- Temporal poles (ToMM, emotional gestures)
- Amygala
- Right posterior superior temporal sulcus
- Ventrolateral prefrontal areas (narrative)
- Orbitomedial prefrontal cortex (narrative)
- Posterior cingulate (role play, narrative)
- Inferior parietal and dorsolateral frontal (role play, narrative)

Pretend play – overlaps with TOMM (Whitehead et al., 2009)

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Pretend play –with narrative (Whitehead et al., 2009)

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Play is good brain chemistry (Sunderland, 2007)

- Play encourages opioids
- Seeking encourages opioids
- Care encourages opioids
- You need: opioids and others for a deeply fulfilling life.
- dopamine

Play helps self-regulation

- For play to be effective neurologically, it has to be real play, fun, laughter, with another
- Not: computer, game boy, slot machine, watching TV as these activities never release the powerful symphony of brain chemicals from interactive physical play.
- Sunderland, M. (2007). *What every parent needs to know*. DK Books: London.

Play

- Bruce Perry (2000)
- “At each stage of development, it is play and the **repetitive elements** of play that help organise neuronal systems which will ultimately mediate more complex motor, social, emotional and cognitive skills.”

Pretend Play - a melting pot of ability

