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Creative Play: Learning in a Brain Compatible Environment

A Workshop Designed & Presented By Ranjana Bhatnagar

Why Play and definition of Play

- **‘Play is the work of childhood’, it is the inner human urge to adapt the environment to ourselves and create new learning experiences.**
- **‘Play is A Window into the child’s world’.**
- All Children have an inborn disposition for **curiosity, imagination, and fantasy**. This inner urge to play, is being silenced in the high-tech commercialized world that we live in.
- Organized team sports and computer games are taking the place of spontaneous pickup games that once filled neighborhoods.
- Play has become a luxury that children today cannot afford, as parents anxious for their children to succeed in a global economy think of play as waste of time.

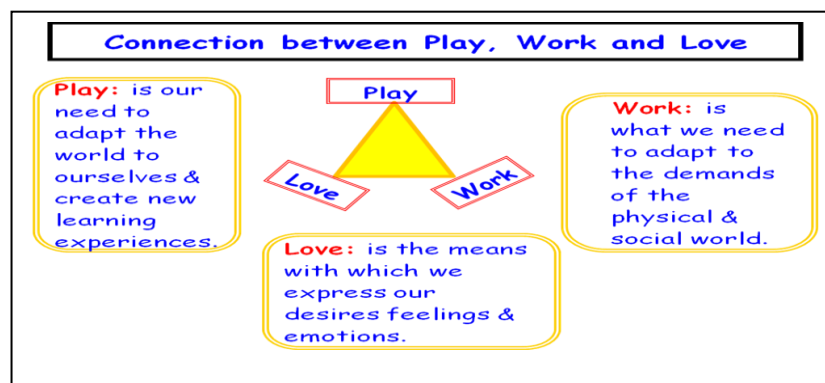
Health consequences of the disappearance of Play

During the Surgeon General’s Conference on Children’s Mental Health held in 2000 it was reported that ---

- ❖ Growing number of children are suffering needlessly because their emotional, behavioral and developmental needs are not being met.
- ❖ **Two thirds of the children in this country suffer at least one health problem.**
- ❖ Thirteen percent of our children are obese.
- ❖ **We have more than 2 million children on Ritalin and other ADHD medications.**
- ❖ This may be the first generation of American children who are less healthy than their parents.

Psychological consequences of the absence of Play

- ❖ When children fail to engage in spontaneous, self-initiated play, serious and **worrisome psychological consequences** are the result.
- ❖ When children are unable to spend time in creative play as a result of spending too much time in front of the television and other screens, **there is little time for developing creativity, imagination and fantasy** – the mental tools required for success in higher-level math and science.
- ❖ Our schools are increasingly using **rote learning** methods to prepare children for assessments; as a result our schools are contributing to the **suppression of curiosity, imagination and fantasy**.



OUR ROLE AS EFFECTIVE EDUCATORS

EFFECTIVE EDUCATORS OF YOUNG CHILDREN WILL ---

- have **faith** in children's abilities, to learn through exploration and experiences
- be **open, flexible and will to change and adapt** to the children's needs.
- understand that each child is unique and all children have **different learning styles**.
- be **sensitive to the needs of all children**.
- Children are often unable to articulate their feelings. By being **active listeners**, effective educators will be in tune with children's thoughts and feelings thereby better able to **understand** them.
- Young children thrive in an **environment** that is safe and nurturing. A safe environment is one that is **physically and emotionally secure**.
- We often focus on the physical safety of the child, not always remembering the emotional need.

EFFECTIVE EDUCATORS ARE

- ❖ Active listeners
- ❖ Sensitive to children's feelings
- ❖ In tune with the child's emotional needs
- ❖ Create an harmonious and child centered environment that is:
 - safe and nurturing
 - Physically and emotionally secure
- ❖ Positive role models

Developmentally Appropriate Experiences

- Are hands on and Multi-sensory in nature.
- Are interactive and allow for flexibility.
- Are repetitive and arouse the Natural Curiosity of children.
- Encourage Exploration in a Safe and Tested Environment.
- Are tailored to meet the needs of individual children based on their interests and developmental levels

Play and the Creative Process

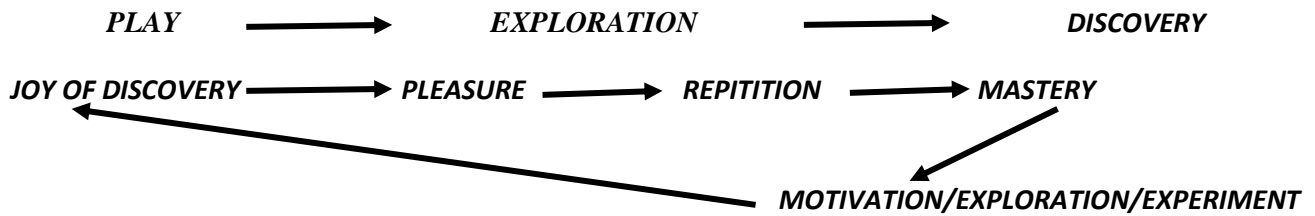
- ❖ **Children are naturally curious**; given the right environment and adequate time their **curiosity will lead to exploration, which in turn leads to discovery and thereby mastery of skills**.
- ❖ When providing experiences we need to be aware that **the more flexible the experiences the more creative the outcome**.
- ❖ Children have a great imagination and will thrive best in an environment that helps **nurture their ability to learn, explore and grow** within safe and healthy parameters.

'Experiences - repetitive, consistent, predictable and nurturing experiences – are required to express the underlying genetic potential of each child. And it is becoming increasingly clear that it is the experiences of early childhood that play a key role in determining the foundational organization of the brain.' (Schore, 1997; Perry, 1994)

Play the Ideal way to learn

- An environment that is rich in **social, emotional and cognitive opportunities** is the key to a healthy development.
- An **ideal environment is one that is play based**, keeping in mind the fact that *'Play is The Work of Childhood'*.
- **Play based learning experiences allow, children to develop the joy of learning**.
- Play provides pleasure; children like to repeat experiences that are pleasurable.
- In order to become effective in motivating young children to learn we need to understand the value of creative play experiences.

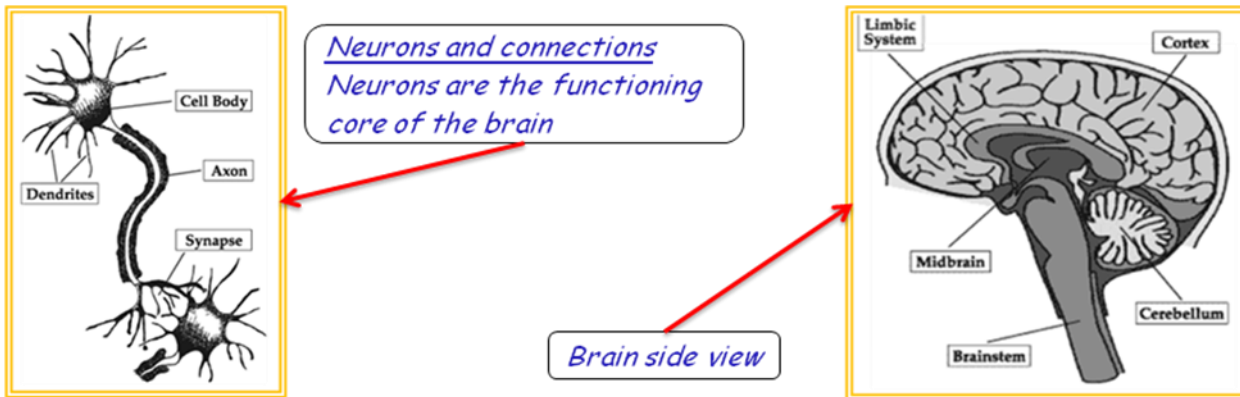
'While the exact nature of play evolves, becoming more complex as we grow, play at all ages brings pleasure. And with pleasure comes the powerful drive to repeat the pleasurable activity. And with repetition, comes Mastery; mastery brings the pleasure and confidence to once again act on curiosity. All learning – emotional, social, motor and cognitive – is accelerated and facilitated by repetition fueled by the pleasure of play.' (Curiosity, Pleasure and Play: A Neurodevelopmental Perspective by Perry, Hogan and Marlin)



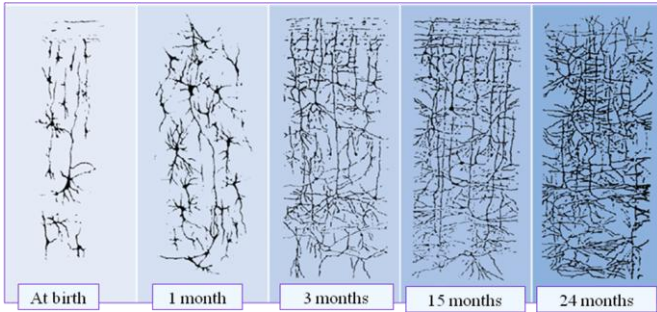
- ❖ Creative play helps develop important life skills, which form the foundation of future learning.
- ❖ Through group play children imbibe important communication skills such as sharing, working together to solve problems, coming up with plans and strategies, and most importantly they are able to act out their feelings and fears.
- ❖ Play helps children develop empathy towards others; they become sensitive towards the feelings of others thereby learning how to get along in-group settings.
- ❖ Dramatic play allows them to express their feelings & emotions, thereby helping them to connect with their own feelings; thus bringing resolutions to inner conflicts.

Some Brain Facts

- The brain develops most from birth to the time the child begins school.
 - 90% of the child’s brain develops in the preschool years.
 - 85% of the child’s brain develops in the first 3 years.
- When a baby is born there are 100 million brain cells that need to be connected.
- In order to develop best what the brain needs most is **“Loving interaction & play”**
- Early childhood experiences exert a dramatic precise impact, physically in determining how the brain develops.
- The brain adapts to its environment. It will adapt to a **negative environment** just as readily as it will adapt to a **positive environment**. Adaptation is an important survival skill.
- About the age of 2 or 3 the brain starts eliminating some of the connections it has made (pruning)
- The brain will hold on to connections that have been repeated frequently.



- ❖ **Brainstem** – controls blood pressure, heart rate, body temperature, survival reactions- this is the part of the brain that develops first. **It is the only part of the brain that is finished developing at birth.**
- ❖ **Midbrain** – develops next and controls motor development, sleep patterns an appetite.
- ❖ **Cerebellum** - is behind the brainstem and it coordinates movement and balance.
- ❖ **Limbic** – attachment, emotional area, memory (emotions and memory are very closely connected)
- ❖ **Cortex** –the thinking part of the brain is the last area of the brain to develop. It regulates decision-making and controls thinking, reasoning and language. **The prefrontal Cortex is the last to develop** – this part of the brain does not develop until we are the age of 25.



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Synaptic density of the human brain

- As the synapses in a child's brain are strengthened through repeated experiences, connections and pathways are formed that structure the way a child learns.
- If a pathway is not used, it's eliminated based on the "use it or lose it" principle. Things you do a single time, either good or bad, are somewhat less likely to have an effect on brain development.
- **When a connection is used repeatedly in the early years, it becomes permanent.** For example, when adults repeat words and phrases as they talk to babies, babies learn to understand speech and strengthen the language connections in the brain.

DIFFERENTIATED CURRICULUM

- ❖ **Based on:** 1. Brain Research; 2. Learning Style; 3. Authentic assessment
- ❖ **Observe & Assess** -Be sensitive to the needs of all students
- ❖ **Know your students** - their abilities, interests & learning styles
- ❖ **Use a variety of teaching strategies**
 1. Direct Instruction
 2. Inquiry-based learning (critical thinking)
 3. Cooperative Learning
 4. Information Processing Strategies
- ❖ **Holistic Approach** - Provide a variety of open-ended; hands on; multi-sensory experiences
- ❖ **Accountability** - Assess and evaluate student progress

Differentiated Curriculum and Play

Key points:

- ❖ Connect with individual students learning styles.
- ❖ Provide a learning environment that will maximize the potential for student success.
- ❖ Be flexible and open to change
- ❖ Take risks and try new learning strategies
- ❖ Meet standards in way that is motivating, challenging and meaningful.
- ❖ Use instructional strategies that focus on the process as well as the product.

NOTE: additional packet of handouts with detailed bibliography has been posted on the NAEYC website.