Hong Kong Montessori Research and Development Association

"Play is the Work of the Child" : Montessori and Play-Based Learning

American Montessori Society Early Childhood Credential Teacher

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Introduction

Dr. Montessori (1964:25) wrote, "He [the child] does it [learning] with his hands, by experience, first in play and then through work. The hands are the instruments of man's intelligence." Children learn through playing, through experiencing the world with all senses (experiential learning). In contemporary early childhood education, "play-based learning" is becoming a popular evidence-based pedagogy. What is play-based learning? How do we expand play-based learning further based on the Montessori philosophy, so that we can guide the children to do as Dr. Montessori taught us and integrate play and work together?

Constructive play and Montessori materials: Compared to typical blocks that build on spatial thinking, Montessori children use sensorial materials such as pink cubes, brown stairs, and colored cylinders to expand their creativity and aesthetics within order and logical thinking.

What is play-based learning?

- A process, not a product or an outcome
  - No extrinsic, adult-targeted goals
  - Children are motivated by the intrinsic characteristic of feeling pleasurable and rewarding, what adults often summarize as "fun"
- Features the child as an active learner, who engages in self-learning and self-thinking
  - Children make the rules
  - Children controls the timeframe (length of play, free to start and stop whenever) and direction of activity
  - Play can be open-ended, elaborate, and extensive. Therefore, the environment provided to the child must be sustainable.
  - Children learn at their own pace
- Allows children to develop understanding of the world around them, including the child's relationship with nature, with others, and with him/herself
  - The child makes sense of the world through exploration and investigation by manipulation of objects or materials suitable for their development
  - The play environment and materials support real and meaningful explorative learning
- Facilitates connections between emotion, cognition, language, socialization, movement, and spirit
- Spontaneous and voluntary
  - Children are guided to their playing and exploration through self-motivation
- Unpredictable and unique, yet the basic steps and procedures of play can be repetitive
- Encourages self-expression of the child
- Develops resilience and perseverance in the child
  - Through learning emotional regulation and literacy, experiencing positivity, responding appropriately through stress, creativity/creative problem-solving and conflict resolution, and forming positive attachment to others
- Guided by adults through questions only at appropriate times
  - Adults can observe children's interest and results of their play to build and plan content-based lessons, leading into "purposefully framed play" (Cutter-Mackenzie, Edwards, 2013)

"Hey, what about this?": Children use their cognitive power of association to build and construct out of their experiences and contexts. In this sequence, children see peddles and stones at school and decide to build a rock massage walk path, similar to one they have seen in parks. Sorting, spatial awareness, creativity, and teamwork combine to create a successful activity from start to finish.

Jean Piaget's theory of constructivism: Children develop in stages while building schemas ("a cohesive, repeatable action sequence possessing component actions that are tightly interconnected and governed by a core meaning" [Piaget, 1952]), by interacting with the environment, people, and objects around them. During play, children are constantly fitting new knowledge into existing schemas while building new ones, assimilating, accommodating, and finding equilibrium simultaneously.

Lev Vygotsky's zone of proximal development: In play-based learning, adults set the environment by observing the children's current level of development while setting appropriately challenging materials and situations that could encourage further growth (Vygotsky 1978).

Albert Bandura's social cognitive learning theory: Children learn as a result of interactions between the environment and the behaviors of him/herself and others. In play-based environments, they are constantly aware of their surroundings, absorbing what they witness and decoding and encoding them into their own understanding.

Urie Bronfenbrenner's ecological systems theory: Each individual exists within an extensive ecological environment, organized into a hierarchal system. The interaction children participate in during play-based learning supply the interaction between them and others, establishing understanding through relationships.

Howard Gardner's theory of multiple intelligences: Individuals learn from many different methods and receptions, and possess different kinds of minds. Play-based learning allows children to explore all these different minds and pathways, establishing meaning in their minds in their own ways.

## Montessori and play-based learning : interrelations and integration

Follow the child after preparing the environment: Dr. Montessori taught that each person contains a spiritual embryo that blossoms along with the physical embryo from birth. In a Montessori environment, the adults' main task is to prepare a suitable environment and allow the children to explore. The children listen to their intrinsic needs and desires as their blueprint call to them. Each step they take and each day they live is to satisfy their inner psychic needs, thus the internal feeling of pleasure and satisfaction of a finished task.

Freedom within limits: Children have the independence to explore their desires in an open and inviting classroom at their own pace. They must adhere to ground rules that are applicable for any person in the school, children or adults alike. For example, they are welcome to try and join in to group play, but only after gaining permission from the other child(ren) by asking. Within these basic ground rules, children develop self-discipline and self-regulation while building up socialization, which lead up to setting their own rules of play that are agreed upon in the group with consensus.

Coordination, order, concentration, and independence: As the four cornerstone traits of a Montessori child, these qualities are built upon via play within a prepared, structured environment. Children in constructive play will build up their coordination and concentration while exploring and manipulating materials such as water, sand, and blocks. Symbolic or social play enhances children's order and coordination as their minds and bodies have to coordinate to act out scenarios based on their imagination, while based in the order, steps, and procedures of the real world. In the Montessori classroom, children develop independence within their work through controls of error – built-in aspects of each material that would wordlessly notify the child if the work were done erroneously. Children can therefore internalize a sense of independence and self-sufficiency during their work.

The need for repetition: Dr. Montessori (1989: 248) wrote, "The child whose attention has once been held by a chosen object, while he concentrates his whole self on the repetition of the exercise, is a delivered soul in the sense of the spiritual safety of which we speak." Play-based learning calls for repetition of a child's play, with the same basic steps and procedures repeated even if the outcome may be unique and unpredictable. Montessori classrooms feature an environment that is conducive to repetitive work, encouraging more practice and fine-tuning skills while exploring different pathways of accomplishing a task.

"Play" vs. "Work": Montessori directresses and guides often call children's tasks as "works" in the classroom. However, that does not erase their sense and love for play in learning. According to Irinyi (2015), this distinction was Dr. Montessori's way to stress the importance of play in the lives of the children. Through playing and working, children develop higher order responsibility as they regard their tasks as having the same importance as adults'. The impact is more deeply felt in their spirit as they find deeper meaning in their "work" and how it affects themselves and the community around them. Because of this perceived and learned importance, children will do all that they can to persevere and achieve their goals, therefore building a foundation of resilience.
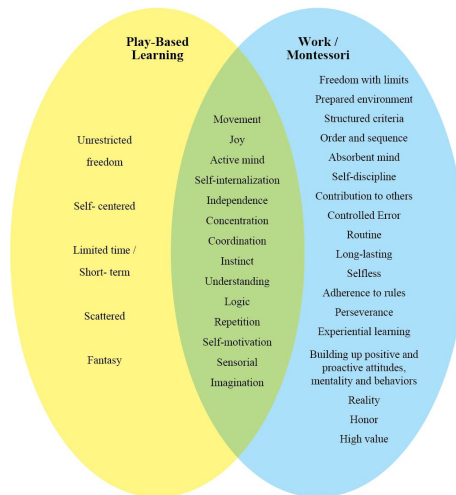
Conclusion

The Montessori concept of "normalization" fits and embodies the goals of play-based learning – and indeed, our idealization of a completed child's development. When a child develops concentration, order, coordination, and independence through work, when he or she finds peace and inner tranquility of the spirit, the child has been normalized. "An interesting piece of work, freely chosen, which has the virtue of inducing concentration rather than fatigue, adds to the child's energies and mental capacities, and leads him to self-mastery" (Montessori, 1964). A child's ultimate inner desire is to become a part of this world, of our and their world, to achieve the state of what Montessorians call "normalized."

Decades ago, Dr. Montessori already laid the foundation of what modern-day educators termed play-based learning. Today's argument for play-based learning emphasized the importance of helping children to develop (through open, free play) problem-solving skills, creativity, logical awareness, relationship-building, and various "soft" skills that are sorely needed in the 21st century. Dr. Montessori expanded even further, noting the importance of play – an element so important to children that she transcended it to "work" – and how crucial it is not only for cognitive development, but to truly satisfy and enrich the child's spirit in order to build up a peaceful world.

Montessori as experiential learning: Through experiential learning with a prepared environment, children learn a plethora of skills through the concentration, order, coordination, and independence.

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Venn Diagram:

Play-Based Learning:
- Unrestricted freedom
- Self- centered
- Limited time / Short- term
- Scattered
- Fantasy

Overlap (Play-Based Learning ∩ Work / Montessori):
- Movement
- Joy
- Active mind
- Self-internalization
- Independence
- Concentration
- Coordination
- Instinct
- Understanding
- Logic
- Repetition
- Self-motivation
- Sensorial
- Imagination

Work / Montessori:
- Freedom with limits
- Prepared environment
- Structured criteria
- Order and sequence
- Absorbent mind
- Self-discipline
- Contribution to others
- Controlled Error
- Routine
- Long-lasting
- Selfless
- Adherence to rules
- Perseverance
- Experiential learning
- Building up positive and proactive attitudes, mentality and behaviors
- Reality
- Honor
- High value