A Summary of the Montessori Terms

1. Absorbent Mind:

(The early years where the mind of a child is most open to experiences)

Montessori believed that the very young child's mind is able to absorb knowledge quickly and effortlessly without any external force being applied. She observed that the child from birth to six years has an "absorbent mind." If rich and varied arrays of experiences are offered to the child in this formative period, could profound and lasting effect on academic, emotional and social development occur?

2. Classification Systems:

(Ways of organizing information)

Montessori implied a natural order that guided all beings in her writing and observed that young children selected activities that appeared to require an application of order to physical materials. Activities that included sorting, allocating or distributing items according to common characteristics appear to drive the pre-school child and may aid in the construction of the intellect by building a framework on which a comprehensive knowledge base is gradually built. A carefully prepared Montessori classroom continually offers children opportunities for classification. In the pre-kindergarten classroom, the Knobless Cylinders and Pink Tower are well known symbols of this process, while in the elementary classroom much of the work in science and history may be completed through varying forms of classification and taxonomy.

3. Classified Nomenclature:

(The process of accurately naming objects and ideas)

Classified nomenclature is the process of naming and ordering complex information of any sort. The technical names of anatomical structures and organisms are given in the form of simple labels usually in Arial bold font. These labels are associated with a simple drawing or photograph and usually on white card stock. This visual and verbal language offers a simple way to dialogue about the items and often places the information in a historical context for further discussion. This process may guide students from concrete facts and knowledge to abstract ideas when used throughout the elementary years. This opportunity to build vocabulary may be critical to future University level research techniques.

4. Concrete to Abstract:

(Going from an object to not needing that object to encapsulate a process)

The concept of concrete to abstract is based on a progression from one level of work to another which is both logical and developmentally appropriate. The child is introduced to a concrete material that is a physical example of an idea such as size or color. Through kinesthetic experiences the child's mind is able to understand the idea contained within the material and is able to store this information in a new form as an abstraction or symbol.

5. Control of Error:

(Class work prepared to be checked by the children themselves, providing them with instant feedback)

Control of error is a method used within the Montessori materials that provides instant feedback for the children about their work. Most Montessori activities provide children with some way of assessing their own progress. This puts control in their hands and is an important aspect in children's development.

6. Control/Working Charts:

(The Montessori control boards for addition, subtraction, multiplication and division for the child to use to check their answers)

Control charts are used to monitor the quality of children's work. Children may use these independently to check their work in addition, subtraction, multiplication and division. The use of these charts makes their studies noncompetitive and allows them to see errors which they then correct themselves. Sometimes children ask for help from an older child through the process of peer mentoring. This benefits both the younger and the older child. It is observed that young children learn well from older children, and that older children get valuable practice in responsibility and leadership.

7. Cosmic Task:

(Asking the question "What are we here for?")

The Greek word "Cosmic" means "order and harmony" in the world. The idea of "A Cosmic Task" is based on the concept that the entire Universe is collaborating in a continually evolving creation of everything that 'is'. So it is thought that by its existence every element of nature performs a task in maintaining a balance in the Universe. For example; a bee collects nectar for food, at the same time it pollinates flowers helping them to continue their cycle, which in turn includes taking in the carbon dioxide and returning it as oxygen to the air for human survival. Aligned with this is the concept of "Autopoiesis" an idea that states that we are all self-creating systems working within a self-creating system (see Varela and Maturana).

8. Etymology:

(Showing where words have come from and why they have changed over time)

Etymology is the study of the history of words. Through this work a child is able to look at language and discover its source, and how words have been formed. They discover that the meanings of words have changed over time; the child is often fascinated by the roots and origins of words in their daily lives.

9. Interrelatedness:

(Showing that everything is related to everything else The connection of universal aspects)

At the elementary level, the focus on child development through interaction with an interdisciplinary "Cosmic" curriculum, one designed specifically to meet the need for the greatest possible context, may guide the child to understand his or her place in the Universe. This curriculum is implemented through use of extensive timelines and group projects that allow the child to discover the interrelatedness of universal concepts. For example, materials such as "Our Planet, our Home" offer a view that allows for interconnectivity of "cosmic" concepts.

10. Isolation of Difficulty:

(Limiting the stages in a piece of work to that which the child is ready to learn)

Before giving a presentation, the Montessori teacher analyzes and prepares the activity specifically for the child. Areas of potential difficulty are then targeted and isolated in order to address the child. For example, holding and snipping with scissors shows the simple movement of opening and closing the scissors and cutting a straight line before curved or zigzag lines are introduced. Isolation of difficulty may apply to any age or activity as long as appropriate materials are provided.

11. Repetition:

(The child chooses to repeat work until mastered)

A young child's work appears to be very different from an adult's. When an adult is working they usually aim to accomplish a goal and may stop working when the objective is achieved. According to Mario Montessori work on human tendencies (date), a child does not always appear to work towards an external goal, but has been observed to follow an inner drive and will often repeat an activity until this inner goal is satisfied (p. 48). He notes that the unconscious urge to repeat activities may help the child to coordinate a movement or acquire ability (p. 48).

12. Sensitive Periods:

(Readiness for different types of information)

Montessori believed that young children experience periods of change in sensibility and are seen to be intrinsically motivated by specific sensitivities at different points in development (see The four Planes of development). A child in a sensitive period may be able to reach deep concentration when engaged in an activity that matches a particular sensitivity. For example, children in a sensitive period for language may be drawn to activities that involve letter formation and reading. They can be observed choosing activities independently and may appear to be completely immersed in the work. A child's desire for repetition in work may also signal the triggering of a sensitivity. I have observed that no extrinsic reward or encouragement is required to instigate this process, but appears to spontaneously occur as an aspect of autopoietic or self-creating drivers within each child. In addition, children appear to be naturally drawn to activities in the environment that meet the needs and match the position within a developmental spectrum.

13. Simple to Complex:

(Starting with a simple idea and gradually adding more details)

As in "Whole to parts to whole" the principal used in the first sequence of presentations in a Montessori classroom, children also work from the simplest form of an idea and take incrementally larger steps toward more and more detail. As the student exhibits mastery at each stage, this progression is called 'Simple to complex." In this way children are first introduced to a concept in its simplest form. As children progress and become capable of making more complicated connections, they exhibit the ability to eventually handle information that is considered more advanced. Zoology lessons provide an example: the child may start the simple task of recognizing and naming animals, then go on to add labels and further information, before moving into more detail, such as studying animal features and habitat whilst making their own drawings and notes.

14. Three Period Lesson:

(A three part informal assessment process)

The "Three Period Lesson" describes the formative and summative assessment process as carried out informally by the teacher both within the classroom and in the large and small independent lessons. The first period lesson is called "Naming" and is exemplified by questioning such as "This is …" The second period lesson is about "Recognition" based on the question: "Show me …" The third period lesson consists of pronunciation of words that assess student knowledge with the question: "What is …?" The three period lesson is used with all Montessori children from ages 2-18 and appears to be a critical to the entire learning process.

15. Time Lines:

(The order of events often used in historical research)

Many of the "Great Lessons" are given by the use of timelines that show a chronological and linear representation of significant events in a subject area such as the history of life, civilizations, language, and art. These timelines include short pieces of illustrations, nomenclature, dates and short paragraphs and may be put together with objects to create "Strike the Imagination" lessons. Timelines come in many forms: some may be purchased from high quality Montessori vendors, while others are made by teachers consisting of simple white rolls of paper with bold headings and no other images, and some timelines are made by students that may include varying lengths, widths and degrees of detail. Children in the elementary years become used to references and cross references timelines of all kinds. By the end of sixth grade, I have observed competent researchers who are able to depict complex information in a logical format.

16. Whole to Parts to Whole:

(Putting information into a context)

The Montessori approach encourages starting with the big picture when relating new information to a child. This is followed by examining smaller pieces and looking at detail before reflecting back to relate the small parts to the whole from which the lesson begun. For example, a study of science starts with the "Big Bang" and moves logically to the formation of the Solar System and then the Earth. Stories introduce topics, such as Mathematics education in the "Story of Math" or language education with "The Story Writing." Montessori appears to have followed the child's mind functions by giving a vision of the whole, before dealing with the parts.