Montessori Method

PAPER 2 UNIT 2 (2.4)

The Montessori Method of education, developed by Dr. Maria Montessori, is a child-centered educational approach based on scientific observations of children from birth to adulthood. Dr. Montessori's Method has been time tested, with over 100 years of success in diverse cultures throughout the world.

It is a view of the child as one who is naturally eager for knowledge and capable of initiating learning in a supportive, thoughtfully prepared learning environment. It is an approach that values the human spirit and the development of the whole child—physical, social, emotional, cognitive.

The teacher, child, and environment create a learning triangle. The classroom is prepared by the teacher to encourage independence, freedom within limits, and a sense of order. The child, through individual choice, makes use of what the environment offers to develop himself, interacting with the teacher when support and/or guidance is needed.

Multiage groupings are a hallmark of the Montessori Method: younger children learn from older children; older children reinforce their learning by teaching concepts they have already mastered. This arrangement also mirrors the real world, where individuals work and socialize with people of all ages and dispositions.

Dr. Montessori observed that children experience sensitive periods, or windows of opportunity, as they grow. As their students develop, Montessori teachers match appropriate lessons and materials to these sensitive periods when learning is most naturally absorbed and internalized.

In early childhood, Montessori students learn through sensory-motor activities, working with materials that develop their cognitive powers through direct experience: seeing, hearing, tasting, smelling, touching, and movement.

- Mixed age classrooms, with classrooms for children ages 2½ or 3 to 6 years old by far the most common
- Student choice of activity from within a prescribed range of options
- Uninterrupted blocks of work time, ideally three hours
- A constructivist or "discovery" model, where students learn concepts from working with materials, rather than by direct instruction
- Specialized educational materials developed by Montessori and her collaborators
- Freedom of movement within the classroom

Montessori education is fundamentally a model of human development, and an educational approach based on that model. The model has two basic principles. First, children and developing adults engage in psychological self-construction by means of interaction with their environments. Second, children, especially under the age of six, have an innate path of psychological development. Based on her observations, Montessori believed that children who are at liberty to choose and act freely within an environment prepared according to her model would act spontaneously for optimal development.

Montessori saw universal, innate characteristics in human psychology which her son and collaborator Mario Montessori identified as "human tendencies" in 1957. There is some debate about the exact list, but the following are clearly identified:[6]

- Abstraction
- Activity
- Communication
- Exactness
- Exploration
- Manipulation (of the environment)
- Order
- Orientation
- Repetition
- Self-Perfection
- Work

Montessori education theory

In the Montessori approach, these human tendencies are seen as driving behavior in every stage of development, and education should respond to and facilitate their expression.

Montessori's education method called for free activity within a "prepared environment", meaning an educational environment tailored to basic human characteristics, to the specific characteristics of children at different ages, and to the individual personalities of each child. The function of the environment is to help and allow the child to develop independence in all areas according to his or her inner psychological directives. In addition to offering access to the Montessori materials appropriate to the age of the children, the environment should exhibit the following characteristics.

- An arrangement that facilitates movement and activity
- Beauty and harmony, cleanliness of environment
- Construction in proportion to the child and her/his needs
- Limitation of materials, so that only material that supports the child's development is included
- Order
- Nature in the classroom and outside of the classroom

Project method

The **project method** is a medium of instruction which was introduced during the 18th century into the schools of architecture and engineering in Europe when graduating students had to apply the skills and knowledge they had learned in the course of their studies to problems they had to solve as practicians of their trade, for example, designing a monument, building a steam engine.[1] In the early 20th Century, William Heard Kilpatrick[2] expanded the project method into a philosophy of education. His device is child-centred and based in progressive education. Both approaches are used by teachers worldwide to this day.[3] Unlike traditional education, proponents of the project method attempt to allow the student to solve problems with as little teacher direction as possible. The teacher is seen more as a facilitator than a deliver of knowledge and information.

Students in a project method environment should be allowed to explore and experience their environment through their senses and, in a sense, direct their own learning by their individual interests. Very little is taught from textbooks and the emphasis is on experiential learning, rather than rote and memorization. A project method classroom focuses on democracy and collaboration to solve "purposeful" problems.

Kilpatrick devised four classes of projects for his method: construction (such as writing a play), enjoyment (such as experiencing a concert), problem (for instance, discussing a complex social problem like poverty), and specific learning (learning of skills such as swimming).

Project method teaching involves three phases. In phase one, the teacher builds an interest in the topic by encouraging students to share personal relevant stories that act as guidelines to help formulate questions to investigate. In phase two, the teacher enables students to go on field trips; interview experts such as waiters, farmers or nurses, depending on the topic of study; and share the new knowledge with their classmates. In phase three, the teacher guides the study to its conclusions and helps the children review their achievements.

There are basic approaches for implementing the project method that require the students to take two steps. Initially, they are taught in a systematic course to study certain skills and facts that they apply creatively to suitable projects without supervision. The second approach stipulates that instruction by the teacher does not precede the project but is integrated into it. In both approaches, time for reflection is provided during all phases of project learning to give students the opportunity to evaluate their progress.

The Nine Steps of Project-Based Learning

Whether students work individually, in pairs, or in groups, having them design something from scratch taps their creative abilities. When using the project-based learning strategy, it is almost guaranteed that the endeavor will be interdisciplinary. The teacher's role is to serve as coach, guiding students to use a variety of resources, employ a strategy that is fun and motivating, and uncover content with depth and breadth.

If we examine project-based learning in the most general way, we can break it down into the following nine steps (of course, teacher-coaches should modify the steps accordingly to suit the task and the students):

1. The teacher-coach **sets the stage for students with real-life samples** of the projects they will be doing.
2. Students **take on the role of project designers**, possibly establishing a forum for display or competition.
3. Students **discuss and accumulate the background information** needed for their designs.
4. The teacher-coach and students **negotiate the criteria for evaluating the projects.**
5. Students **accumulate the materials** necessary for the project.
6. Students **create their projects.**
7. Students **prepare to present their projects.**
8. Students **present their projects.**
9. Students **reflect on the process and evaluate the projects** based on the criteria established in Step 4.

What is Multisensory Teaching Techniques?

“If a child is not learning in the way you teach, change your teaching strategy and teach the child in the way he learns!”

Multisensory techniques are frequently used for children with learning differences. Studies from the National Institute of Child Health and Human development (United States of America) have shown that for children with difficulties in learning to read, a multisensory teaching method is the most effective teaching method.

Multisensory teaching techniques and strategies stimulate learning by engaging students on multiple levels. They encourage students to use some or all their senses to:

- Gather information about a task
- Link information to ideas they already know and understand
- Perceive the logic involved in solving problems
- Learn problem solving tasks
- Tap into nonverbal reasoning skills
- Understand relationships between concepts
- Store information and store it for later recall

Using a multisensory teaching technique means helping a child to learn through more than one sense. Most teaching techniques are done using either sight or hearing (visual or auditory). The child’s sight is used in reading information, looking at text, pictures or reading information based from the board. The hearing sense is used to listen to what the teacher says. The child’s vision may be affected by difficulties with tracking or visual processing. Sometimes the child’s auditory processing may be weak. The solution for these difficulties is to involve the use of more of the child’s senses, especially the use of touch (tactile) and movement (kinetic). This will help the child’s brain to develop tactile and kinetic memories to hang on to, as well as the auditory and visual ones.

Students with learning difficulties typically have difficulties in one or more areas of reading, spelling, writing, math, listening comprehension and expressive language. Multisensory techniques enable students to use their personal areas of strength to help them learn. They can range from simple to complex, depending on the needs of the student and the task at hand.

Learning Style

Some researchers theorize that many students have an area of sensory learning strength, sometimes called a learning style. These researchers suggests that when students are taught using techniques consistent with their learning styles, they learn more easily, faster and can retain and apply concepts more readily to future learning. Most students, with a difficulty or not, enjoy the variety that multisensory techniques can offer.

Now we can go through some of the multisensory techniques which could be used to assist a student in his / her learning.

I. To stimulate visual reasoning and learning

- Text and/or pictures on paper, posters, models, projection screens, computers or flash cards
- Use of color for highlighting, organizing information or imagery
- Graphic organizers, outlining passages
- Student created art, images, text, pictures and video
- The above mentioned techniques often include visual teaching methods and strategies.

II. Auditory techniques

- Books on tape, peer assisted reading, paired reading and computerized text readers
- Video or film with accompanying audio
- Music, song, instruments, speaking, rhymes, chants and language games

III. Tactile teaching methods

Multi sensory techniques that involve using the sense of touch are called tactile methods. Tactile methods include strategies such as:

- Sand trays, raised line paper, textured objects, finger paints and puzzles to improve fine motor skills
- Modeling materials such as clay and sculpting materials
- Using small materials called manipulatives to represent number values to teach math skills

IV. Kinesthetic methods

Multi sensory methods using body movements are called kinesthetic methods. These involve fine and gross motor movements.

- Games involving jumping rope, clapping or other movements paired with activities while counting and singing songs related to concepts.

- Any large movement activity for students involving dancing, bean bag tossing or other activities involving concepts, rhythmic recall and academic competition such as quizzes, flash card races and other learning games.