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How the Montessori methodology gives rise to innovative teaching-learning outcomes

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The Montessori Method is one hundred and five years old and to talk of “innovative teaching-learning practices” with reference to it seems to be an oxymoron!

However, the truth is that for a variety of reasons, its principles and practices are not yet widespread to make it the accepted way of organizing classrooms. Therefore, it is still possible to talk of the Montessori Method, when followed in the classroom, in its true spirit, as one that does give rise to innovative teaching methodologies and optimal learning outcomes.

Montessori defined education as assistance to life. If that indeed is our aim and if we were to state our own dreams of creating institutions of excellence where children will find the best practices suited to their specific needs and characteristic way of learning at that stage of their development, Montessori’s philosophy will give us the ideal match because her method was born out of years of observation of the child.

The classroom, set up for a 3-6 year old, is therefore different from the one we prepare for the 6-12 year old as their respective needs and characteristics are as different as those of the different stages of the butterfly’s life cycle! While we do accept that the infant’s nutritional needs are different from the toddler’s and those of the toddler different from the school-going child, most schools seem to have been designed as though all children from 3 or 4 to 16 can make do with the same kind of classroom organization and teaching methods.

Over the years, however, many schools in private and public spaces have tried to bring in alternate ways of helping children learn.

The Classroom

The classroom is prepared by the teacher taking into consideration the needs of the age group 2½-6 years. There is enough space for the children to spread their work mats on the floor. Once unrolled, the work mat becomes the child’s own space or territory. Some children may work on chowkis which are low tables. The materials are displayed in low three-tier shelves placed along the wall. These enable the child to see, choose and handle the materials independently. There are pictures on the wall at a height where children can look at them whenever they want and for as long as they want. These are not the regular cartoon pictures, but those hand-drawn with details of matters of interest to children. There may also be letters of the alphabet in English and the regional language written in beautiful script by the teacher. In places where the classroom is not large enough, children carry their mats and materials to the adjoining verandah and carry out the activity.

The learning materials

In the Montessori environment there is a range of materials around four main areas: exercises of practical life, sensorial activities, language and arithmetic.

These have found their place in the environment after many years of observation of children and taking into consideration the sensitive periods or critical periods of learning. The activities have to be meaningful to children and therefore we cannot bring in material simply because we find them attractive. Our focus is on offering the child age-appropriate activities that will stimulate him to work leading to deep involvement in the activity or a state of concentration.

The materials for **exercises of practical life** help the children settle into the new environment and are built around the day-to-day activities of the adults around him. He does holding, carrying things, pouring of grains and liquids, folding dusters and napkins, dusting, wiping shelves and floors, cutting vegetables, rolling chapathis, etc. The activities are adapted to the locality in which the school is located and therefore lend themselves to the creativity of the teacher. Montessori's **sensory apparatus** are universally well known and readily available in the market with manufacturers, as also is her material for **arithmetic**. However, how rich is the classroom with **language materials** depends entirely on the teacher who creates classified pictures around a variety of themes to enrich the child's vocabulary. At a later stage, the child prepares himself for writing without actually writing by working with different materials like the Sandpaper Letters and the Movable Alphabet, (a box containing cut-outs of the letters of the alphabet, which the child arranges in order as he listens to the sounds of the letters in a word). She also prepares picture cards with name slips when the child reaches the reading stage. Booklets are prepared around various topics with single words or phrases on each page and a matching picture on the other side for the child to read and gain confidence.



Maria Montessori

Methods followed in the classroom

The teacher shows the children the way in which to manipulate the material through a formal “presentation” of the material. There are opportunities for individual, group and collective presentations. At this stage of development, it is observed that the child prefers to work by himself and even when two friends choose to work close to each other, their way of working is not one of collaboration, rather each to his task, but in happy camaraderie.

Montessori environments provide freedom for the children from the age of 2½ to choose, to work, to move, to talk etc. But these different kinds of freedom come with certain limitations. The child, who has the freedom to choose the material he wants to work with, has to first have it formally presented to him by the teacher and then it has to be available on the shelf. If another child is working with it, he has to wait patiently for it to be put back or make another suitable choice that he finds equally appealing. This seems to be a natural way of helping children develop a sense of social responsibility and Montessori calls it the “cohesion of the social unit.” In another equally important way, this is also an opportunity for the development of the will power of the child.

The Montessori environment enables the child to explore, manipulate and work repeatedly to achieve mastery over the tasks he undertakes and to arrive at a deep understanding of basic concepts in mathematics and language and thus it prepares him for future academic work as well as for life itself.

Learning Outcomes

One of the ways of addressing quality in education is to look at what we want our children to know or become when they leave pre- primary and move to the primary, primary to elementary and so on till they leave school with the school- leaving certificate.

“Learning by rote prevails in top schools” is the headline of the article in the Hindu (December 12,

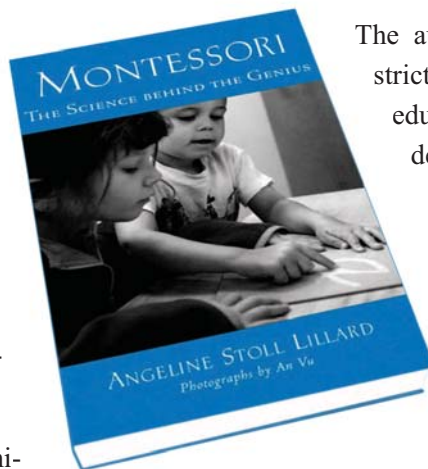
2011) of a study done by WIPRO EI. Many parents report that their children going to primary classes in private schools are asked to write answers only from the text and are marked wrong if they write in “their own words.” How do we expect children to outgrow these early expectations from teachers and suddenly start thinking out of the box when they are in high school?

Montessori states,” Growth comes from activity, not from intellectual understanding. Education, therefore, of little ones is important, especially from three to six years of age, because this is the embryonic period for the formation of character and of society....” (The Absorbent Mind, Maria Montessori)

Psychologists Angeline Lillard of the University of Virginia (author of *Montessori: The Science behind the Genius*) and Nicole Else-Quest, now at Villanova University, surveyed children who had participated in a random lottery to attend a public Montessori school in Milwaukee. The study appeared in the *September 28, 2006 issue of the journal Science*.

I quote, “A study comparing outcomes of children at a public inner-city Montessori school with children who attended traditional schools indicates that Montessori education leads to children with better social and academic skills” ...than their counterparts in traditional schools. “Montessori education is characterized by multi-age classrooms, a special set of educational materials, student-chosen work in long time blocks, a collaborative environment with student mentors, absence of grades and tests, and individual and small group instruction in academic and social skills. More than 5,000 schools in the United States, including 300 public schools, use the Montessori Method.”

Among the 5-year-olds, Montessori students proved to be significantly better prepared for elementary school in reading and math skills than the non-Montessori children. They also tested better on ‘executive function,’ the ability to adapt to changing and more complex problems, an indicator of future school and life success.”



The authors concluded that “...when strictly implemented, Montessori education fosters social and academic skills that are equal or superior to those fostered by a pool of other types of schools.”

To appreciate how effortlessly children develop their social skills in this kind of environment, I quote, Mrs. Padmini Gopalan, president of the Sri

Ramacharan Trust: “One of the friends of our Trust wanted to celebrate a family event at the Chennai Schools, Corporation of Chennai, in Mylapore where we had set up a Montessori classroom. She brought the children some sweets and snacks one afternoon. The children were asked to sit in a row around the classroom and the visitors started serving them the snacks. I was amazed that the children between 3 and 5 years waited patiently to be given the sweets and savouries. There was no clamour, no demands, no crying and yet there was no fear either of the teachers or the visitors. One of them even commented on the food and said, ‘This vadai is very good, but it must be from an Iyer home, because there are no onions in it!’ Is it because they have learnt to wait for the materials to be available to them and now trust that they will get their share?”

The qualities that a child of six may reveal when he leaves the first Montessori environment are self-confidence, self-esteem, a sense of responsibility, the ability to articulate his thoughts, self-motivated learning, commitment to completion of a task that he

has taken up, and most of all, the ability to concentrate on the task at hand. Each of these qualities, if we consider them as learning outcomes, can be illustrated with experiences from the classroom.

For a child an important prerequisite for all learning through his school years is the ability to concentrate. A constant admonition from teachers and parents to the child is, “if only you paid attention or concentrated, you could do so much better!” But where are the opportunities given to children to concentrate in a natural manner?

In the Montessori environment, children are able to achieve a certain level of attention and mindfulness, even within a short time of joining school. One of the first activities in which a child may start concen-

trating is when he starts threading beads and later when he starts transferring grains from one container to another. This habit formed early in life develops naturally when the child carries out activities which he has chosen because of his inherent interest in them.

In conclusion, if as educators, we have dreams of creating meaningful learning environments, we should start as we mean to go on. When we view early childhood in this spirit, it becomes crystal clear that we need to develop practices that focus on the holistic development of the child in an organic manner that gives the time and space for the natural growth of the child.

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