



Curiosity and learning

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‘Teaching is more difficult than learning because what teaching calls for is this: to let learn’.

Martin Heidegger (1889 – 1976)

A toddler was playing in the sandpit for the first time, under the watchful eye of his mother. Her attention shifted as her cellphone rang and the little boy, oblivious of his surroundings, was deeply engrossed in holding sand in his hand. He seemed to be thrilled with the experience of sand slipping out of his fist as he kept repeating the action of picking up sand in his fist over and over again. Gradually curiosity took over and this time he brought his fist to his mouth and was about to get the taste of sand, when his mother pulled him up in her arms and shouted, “No..no eat, sand dirty, you bad boy”. The following few weeks the child was not allowed to play in the sand and was contained in his stroller.

A friend’s daughter about three years of age reached out to the bowl of fruits and pulled out an orange. Within minutes she had crushed the orange in her attempt to peel it. She was engrossed in squeezing the orange and soon the sticky orange juice was all over her dress, hands and the floor. She enjoyed the taste of the juice too. She played with the juice that had spilled on the floor for a while and then started crying out loudly. Apparently, she did not like feeling sticky all over and the flies that she attracted. The mother gently took her to the bathroom, cleaned her up and changed her dress. She was back to playing happily. But this time, she did not go back to the fruit bowl. This friend had let her child live the experience. It would be difficult to point out to what exactly she learnt from the experience, but one could positively say that she did learn the joys of discovery.

By containing the little toddler in his stroller, the mother believed that she was protecting her son from falling sick. The mother was also justified in doing so as eating contaminated sand can lead to

serious illness and could also cause choking. Watching all this silently, I wondered, “What must the child be thinking?”, “What is he learning from all the stimuli he received from the environment and his mother?”, “What would have happened if he had tasted the sand – would he have liked it, or would he have spat it out?”, “Would he have choked?” On the other hand I wondered what would have happened if the little girl had been restrained from exploring the orange? Would I have experienced the joy on her face, the wonder in her eyes, the smacking of her lips after tasting the juice, the displeasure created by the stickiness that the mess created, if her mother had taken the orange away?

Further questions of how would a teacher react to such episodes arose in my mind. Would the teacher stop the child from exploring? Or would she join in the process of exploration? Would she display disgust at the mess created by the child? Would she be worried of their safety?

Jane Clarke, a Kinesiology professor of University of Maryland has talked about ‘containerised kids’. According to her the long term health of children is compromised with more and more children being confined to smaller places. Children spend more and more time in high chairs, strollers, baby seats and car-seats for safety reasons (Louv, 2005). In India too, we witness this in different ways. In urbanised well-to-do families, children are contained in strollers, chairs and seats and in the urbanized poor families they are contained in small dwellings. Children are increasingly unable to explore and experience their surrounding for safety reasons such as accidents, injury, harm from other individuals and creatures. Time constraints and the possible increase in jobs (mainly cleaning the mess created) also deter the mother from giving the child the much needed space to discover their surroundings.

Teachers too contain children in their desks. Children do not enjoy freedom of movement and freedom to explore and experience. Most early childhood education programmes not only limit the space, but also limit the child's experience. A fixed curriculum with fixed methodology and fixed set of activities do not give children the space to be curious and creative. The teachers are constrained not only by the curriculum, but also by the need to 'manage the class' by ensuring a quiet classroom with children sitting at their desks, soaking in all the stimulus given by the teacher with little opportunity to express their responses which could be a display of arising emotion, sharing information they already know or simply asking more questions.

'To learn from experience' is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence (Dewey, 2003). Citing the example of a child sticking a finger into a flame, Dewey states that 'it is experience when the movement is connected with the pain which he undergoes in consequence.' The child thus learns from experience that sticking a finger in the flame means a burn and this burn causes pain. The little girl through her experience with the orange experienced the consequence of discomfort and displeasure arising from the stickiness created by the orange juice and hence learnt that squeezing oranges with her hand will cause stickiness. She also experienced the taste of the orange. Soon she will be able to recognize this taste as 'tangy' – a taste different from other eatables.

Piaget gives us insights on how this learning happens. He states that children construct their knowledge and play an active role in the process of learning. They do not passively soak in information given to them, but build from their existing knowledge. According to Piaget, when approached with a new experience, the child first tries to understand it through his existing schemes and structures. Disequilibrium is created when the child feels that his previous understanding does not give a satisfactory answer. This disequilibrium is resolved through the process of accommodation where the child's existing schemes and structures are altered by the new ones. The child adapts, organizes all the structures (new and old) and forms a new understanding. Once the disequilibrium is resolved,

the child achieves a state of equilibrium and this process is called equilibration.

The little girl used her senses of touch, taste, smell and sight to understand what an orange is and what she likes about an orange and what she doesn't. The little boy however was denied this experience. He experienced his mother's unpleasant words and a denial of sandpit entry as a consequence of tasting some sand, the little girl experienced the discomfort created by the sticky orange juice. At the same time she also experienced the pleasure she derived by the sweet taste of the orange. The consequence faced by the little girl was a natural consequence, while the other was created by his mother. This toddler would probably try tasting sand the next time he enters the pit and with similar repeated reactions from his mother would either stop as he did not like this consequence or due to fear.

Would this boy's experience have been different if the mother had approached the problem differently? The way we ask questions or guide children affects their learning experience. Adele Faber and Elaine Mazlish in their book, 'How to Talk to Kids so That They Learn', bring out the importance of our conversations with our children. According to them, the way we talk to the children shapes their learning. Instead of denying their feelings and their curiosity, one should guide the children to unfold their experience and learn from the resulting consequences. Instead of taking the extreme step of containing the child, the mother could have used a non-threatening way to help the child understand that eating sand is not good. Earlier, Vygotsky too had explained how social interaction helps the child develop his understanding and knowledge. He talks about a process of scaffolding where the adult or an older peer through their interaction help the child build his /her knowledge. His theory on social constructivism states that learning happens through social interaction and the cultural setting of the child.

Both the children were guided by their curiosity to explore and experience. However, while the girl had the freedom to explore her curiosity, the boy's experience was stalled by his mother. Theresa Willingham brought out the deeper impact of thwarting curiosity in the opening statement in a TED conversationⁱ, "But without curiosity, there's

little impetus to discover or explore. Without curiosity, apathy and disinterest creep in and the commensurate affects of an unexamined life can be culturally far-reaching - affecting political involvement, scientific, literary, artistic, economic and social achievement and development.”

As early childhood educators, we play a crucial role in keeping this curiosity alive and to provide children opportunities to experience and explore and learn through natural consequences. This is possible if the child uses the five senses of touch, taste, sight, smell

and hearing to process the stimulus and make meaning out of it. Early childhood educators such as Maria Montessori stressed on first the education of the senses and then education of the intellect. She focused on self-realization and believed that the teacher is the keeper of the environment who observes and intervenes from the periphery. In conclusion, as noted by Maria Montessori ‘the task is to arouse such an interest that it engages the child’s whole personality.’(Montessori, 1949).



Theresa Willingham, USA, ‘Celebrating and Inspiring Curiosity as a Key Component in Learning’, TED Conversations
http://www.ted.com/conversations/145/celebrating_and_inspiring_curi.html

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