

Understanding When and How Children Learn

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An infant is looking keenly at her hand, she shakes it, brings it close to her mouth and sucks her fingers. She takes her fingers out of the mouth and looks at her hand again. She lets out a small squeal. A two-year-old is repeating everything said by his older sister and giggling. A four-year-old is sitting in the sand, filling and emptying a mug with sand. A five-year-old with a toy hammer in his hand is going around the house tapping different things and looking at his mother. A six-year-old is following her mother in the house as if she is her tail. Two thirteen-year-olds are sitting next to each other, playing with blocks. A sixteen-year-old is kicking a ball against a wall repeatedly.

Often, children seem to engage in activities which seem pointless to the adult eye. Some common interpretations of these are, 'Oh he's daydreaming', 'is playing' or 'is just wasting time'. One might think, what can a child possibly be learning in the above-mentioned situations? When we talk about learning, we somehow automatically relate it with an image of a child sitting seriously with books, doing homework, listening to an adult or reciting a memorised piece. But, sometimes, it is important to remind ourselves that learning is a continuous and ongoing process, not just an outcome.

Human beings are born curious and explorative by nature. Like little scientists, children, even infants, conduct experiments in their attempt to explore and construct knowledge. For example, the one-year-old who keeps throwing everything within her reach, is learning about which objects make a sound while falling and which don't; what happens when she throws it from different heights. Children constantly act on their surroundings to learn how the world works.

How do children learn?

- *Observation* - The six-year-old following her mother around the house is observing intently 'how to be mother'. Perhaps she would be seen re-enacting this while playing house-house.
- *Imitation* - The two-year-old imitating his sister is learning the rules of language and boundaries of playfulness.
- *First-hand experiences; learning through own enquiry* - The five-year-old boy is constantly looking at his mother for feedback about what he can hit with the hammer and what is out of bounds. He is also learning about the different sounds made by different surfaces.
- *Experimentation; trial and error* - The four-year-old child who is filling and emptying her mug with sand is learning about concepts of empty and full and learning to coordinate her movements.
- *Role of environment in learning* - Children learn from other people in their lives; the two thirteen-year-olds may be observing and learning skills from each other.
- *Reflective thought* - In all the examples, reflective thought is something that remains constant. Even though it may not look like it, children are continuously thinking about their learning, about cause and effect and about things they observe in their environment.

Learning in schools

It seems like we all are born wanting to learn. Then when and how does learning become a task? Why do we find ourselves assuming that some children are incapable of learning?

Think about the time you learned to swim or cycle. Did someone teach you the techniques? Did you observe someone else and try to copy? Did you, over time, experiment and come up with your own tricks to stay afloat in water or balance the cycle?

All of us have the ability to learn, but we learn in different ways. We have natural preferences for certain kind of learning methods, and we each have a different pace. Sometimes we combine our way of doing something with ways that we have observed other people do it. Now let's take the example of a classroom. While teaching a chapter on fractions, some children seem to get it instantly, while others don't seem to understand. Some children benefit from having physical blocks to solve the problem

while others prefer solving by being able to read the problem itself.

Problems arise when we measure learning only based on an outcome and do not acknowledge the process. When we measure success or failure only on the basis of whether or not the child could solve a sum, we lose out on other important processes:

- We start believing that some children can learn while others cannot. Sometimes, we can assume reasons for this, such as the child is too naughty, does not have a good home environment, is not intelligent, or lacks concentration to learn.
- We might forget to measure learning over a period of time as different children learn at different paces.
- When our mind is focused on the outcome, we may miss out on observing the parts of the topic that the child does understand. For example, the child understands fractions in daily life conversations – ‘Give me half the chocolate, share this chocolate equally among the three of you’ - but is unable to understand it in numbers. This observation, in fact, might be helpful in the classroom because if we can understand what the child does understand and where he/she is stuck, it can inform our teaching style and content.

Taking learning into the classroom

There are so many children in a class, how can a teacher cater to everyone’s speed of learning? Plus, the school requires teachers to do assessments where there is a need to measure outcomes. How can this information be used in the classroom? Some examples of how this learning can be taken into the classrooms:

Changing one’s own beliefs

Children are very keen observers and are far more proficient in understanding non-verbal cues than adults. They can sense that the teacher thinks ‘I am stupid’, even if this is not spelt out in words. This can restrict the child’s learning by lowering his/her self-esteem; the child starts believing that ‘I can’t do it; I am not smart enough’. Often, this belief can be the reason why children start acting naughty; it can stem from frustration from not being able to do well in class, or it might come from the belief that ‘I can’t do well and be popular, so let me disturb everyone and be popular’.

A teacher’s belief in a child’s capabilities has a very strong impact on the child. The child is able to pick the sense that, ‘teacher thinks I can do it’. Moreover,

when the teacher believes that every child in the class can learn, there is an automatic change in his/her own behaviour. This change in itself is very comforting and encouraging for the children. Let’s see an example of this below:

This is the experience of a government primary school teacher from Raipur. Ms Gayatri taught primary school children and often felt that ‘these children aren’t smart enough’. Even in class I and II, the reading and writing levels of students were quite low. This made her feel demotivated and sometimes also angry with the children. Below is a report of the impact of a training session she attended on how to teach young:

‘One of the greatest shifts Ms Gayatri felt with regard to her teaching was her perspectives about how children learn and what they are capable of doing. After realising that children can learn on their own, the purpose of using TLMs and leaving material for exploration started making sense to her. She could also use this knowledge to tap into the natural curiosity of children; this tool turned out to be very useful to retain the attention of children. Her interactions with students shifted from using punishment and scolding to simply conversing with them. The shift was gradual and often not linear, but she is grateful for this process.

After Ms Gayatri’s adapted teaching methodology, there was an almost immediate difference in the learning and participation levels of the children. Gradually, children of class I started reading, their interaction in class increased, and it seemed that they understood far more than before. She expressed that even to her, the classes were more enjoyable. Furthermore, other teachers in the school and a few from other schools have extended their desire to adopt the same practices.¹

When one’s views on how children learn, change, there may be an automatic change in how one teaches. For example, if Radha believes that children learn only when they write everything, she will use a lot of writing tasks in class. However, if she believes that children learn best by exploring, she might use more puzzles, experiments and fun-fact corners in class.

Changing one’s pedagogical style

Sometimes when a child fails to learn, it is not because he/she cannot learn, but because that method of teaching is not working for the child. Hence, by just changing one’s teaching approach and meeting the child where he/she is, it is possible to help the child

overcome the 'stuck-ness'. The following example showcases this:

This is a report of a three-year-old child with autism. He did not speak, seek attention or affection from anybody. He was brought to a school for children with differential needs; this is the report of his experience of having one on one sessions with one of the teachers for three months.

Parth didn't show any motivation or curiosity to learn about anything or anyone. Even when brought to school, he would refuse to sit in front of the teacher. He would go and sit on the floor in a corner and look self-occupied. The only thing he had shown some interest in was superhero comics. Though he didn't know how to read, he was seen flipping through some comics at home.

After failing to capture Parth's attention for weeks, the teacher decided to use Parth's interest in comics in class. The teacher did not force Parth to come and sit in front; instead, the teacher also sat and drew comics. After finishing one comic strip, he left the paper near Parth and returned to his seat and continued drawing. This act was a non-threatening invitation to Parth. Slowly, after two months of being in class, Parth came and sat in front of the teacher. He would silently observe while the teacher drew; gradually, he began pointing at the drawing and making sounds. The teacher had successfully piqued Parth's interest; he felt safe and was interacting on his own initiative. This was the entry point wherein contact was successfully established; after this, gradually, the teacher was able to increase interaction and engage in different methods.

A child, who everyone thought is incapable of learning, who had absolutely zero interest, is now an average eight-year-old who likes playing with friends and is curious about his environment. Thus, it is important to remember that a child may fail to learn through a given method, but this does not imply that the child has failed at learning.

Capturing and retaining interest and curiosity

If you have ever been exhausted by a child's unending questions, you would know that children want to learn. They are curious and keen observers. Often, the classroom learning environment ends up oppressing this natural want of children to learn. John Holt in his book, 'How Children Fail' specifies that one of the reasons why children fail in the classroom is because they are bored; the repetitive tasks that children are often asked to do in schools does not utilize the wide range of capacities the child

has. Hence, the child loses interest and does not feel engaged. (Holt & Fromme,1964). This may often be interpreted as 'this child is unable to learn'.

How then can we capture the natural interest and curiosity of children?

One way is, in addition to 'teaching children', to let them explore, discover, figure out and apply concepts on their own as well. Relating concepts to a child's surroundings, giving them food for thought, and letting them ponder over things that have been taught to them feeds their natural curiosity and motivation. The following is an example of a teacher adopting these in her classroom.

This is an account of a social science teacher in a government secondary school in Raipur. Ms Joshi expressed that children need some elbow room to function at their full potential. Though she emphasised that continuous engagement with children is essential for learning, she recognises the need for freedom and explorative learning. This, she believes, can be achieved through activity-based pedagogy which gives a chance to the children to apply their classroom knowledge to their own lives.

Personalising pedagogical space

While teaching the chapter on 'छोटे और बड़े उद्योग' (small and big industries) she organised a visit to the nearby Parle-G and Jindal factories. After having seen the factories the children, on their own, listed the characteristics and differences between a big and small industry. Another class was taken to the book factory while studying about the printing press/ media. While studying civics and general knowledge, she asked the students to choose a topic and carry out a survey in their village. The survey topics mostly consisted of issues present in their village and people's perspectives regarding those or on demographic structures and panchayat functioning. These surveys were put up in the class and children were seen discussing the surveys with their classmates during their free time.

Independent and explorative learning

Ms Joshi alternated between two classes in a time span of 45 minutes, the students of the other class continued to work on the task given. Ms Joshi spent about 15 minutes teaching a concept (different kind of industries) following which she divided the children into groups and gave them a task which linked this concept to their own context (brainstorm all the industries you see in your village and classify them in the categories learnt). It is possible that

the kind of tasks given to the children piqued their interest and they feel motivated to do the task even though the teacher is not in class. A lot of space for independently exploring the concept was given to the children and the children seemed to actually utilize that space happily.ⁱⁱ

Have assessments which account for difference in pace and styles of learning

The conclusion that ‘this child is bad at learning or can’t learn’ is often based on, untimely, assessment or an assessment in a method that did not capture the learning of the child. Of course, it is not perhaps practical to have different assessments for each child; schools require some structure and standardization. But there is value in ensuring that in a given term, assessment is done by a variety of ways so that the child gets an opportunity to showcase his/her learning at least in some modality. For example, having a combination of written tests, verbal, showcasing or exhibiting and creative expressions.

Furthermore, each child learns at a different pace; as part of the Continuous and Comprehensive Evaluation, various processes can be put in place to capture children’s step by step progression in learning, instead of focusing only on the outcome. Following is an example of the same.

Reproduced below is a report of a teacher from Pithoragarh, whose pedagogy was centred on a child’s capability and pace. Each class had an excel sheet with the names of students and skills to learn during that semester. Since students may take differing amounts of time for different topics, the classroom allowed for them to spend time on each topic according to their need. The students progressed from one tick to two ticks and then three ticks when the skill was mastered. Hence, what the child did in class that day depended partly on his/her chart.ⁱⁱⁱ

In summary, it is imperative to remember that there are many reasons why a child fails to learn. By reflecting on one’s belief about how children learn, pedagogy used, content and assessment, more often than not, one is able to create a space wherein children flourish.

Name of student	A-Z	Flower names	Fruit names	Months	Relationships	Writing	Counting
Raghav	✓	✓✓	✓✓	✓	✓✓	✓	✓
Neha	✓	✓✓	✓	✓✓	✓	✓✓	✓✓

ⁱ <https://practiceconnect.azimpremjiuniversity.edu.in/a-teacher-transformed-through-training/>
ⁱⁱ <https://practiceconnect.azimpremjiuniversity.edu.in/teacher-as-the-epicentre-for-change/>
ⁱⁱⁱ <https://practiceconnect.azimpremjiuniversity.edu.in/integrating-schools-into-social-fabric-of-community/>

References

Holt, J. C., & Fromme, A. (1964). *How children fail* (Vol. 5). New York: Pitman.
<https://practiceconnect.azimpremjiuniversity.edu.in>



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