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A School of Life in the Mountains

Meenatchi Prabhu

At Jhamtse Gatsal, children revel in an education of the heart, mind and body

hat would you do if you saw an army of ants making their way towards your house?

Perhaps you might be inclined to disturb the harmonious, painstaking, synchronous movements of the ants; even employ a bucket of water to wash them away. Or you might use an ant-repellant chalk and draw a nice, fine line on the ground, in the hope that these tiny-legged beings would perish and leave you in peace.

Meet Kirti*, with a radical approach to evoke the aforementioned 'peace.' Instead of seeing the ants as a disruption, Kirti brings a biscuit, crumbles it, and starts to feed them.

The world can learn a lot from Kirti. Rather than viewing nature as an impediment to development, she has learnt to live in harmony with it. She is one of the hundred

students of life at Jhamtse Gatsal Children's Community. She was disillusioned by the mainstream education system, so she helped start an organic farm at the Community.

Translated as 'garden of love and compassion,' Jhamtse Gatsal is situated at the tri-junction of India, Tibet and Bhutan. Jhamtse Gatsal is not just a home; it is a school and a lifelong learning center for abandoned, orphaned and underprivileged children, mostly from the nearby villages of Arunachal Pradesh's Tawang district.

Kirti's story makes you wonder: What goes into giving kids the type of education which helps them bloom into loving, compassionate individuals who are capable of living in harmony with nature, with themselves and with the world?

Educating the Heart, Mind and Body

The Community takes a holistic approach to education-one that focuses on the heart, mind and body. One that inculcates in

One of the oldest children in Jhamtse Gatsal teaching one of the youngest to play badminton



children empathy to connect and compassion to nurture; the wisdom to distinguish between choices and guide ourselves towards the right path; and cultivate a healthy and skilled body to serve. We believe that education should aim to nurture, guide and serve.

On the contrary, the aim of modern education is for children to gather as much knowledge and acquire as many skills as possible. Since the system centralizes on books and degrees rather than taking care of the mind, heart and body, the children who pass out of such an education system tend to be more intent on results, efficiency and short-term validation while the tenets of values, principles as well as mental and physical health are sidelined. Compassion is sacrificed in the pursuit of 'excellence' and 'efficiency.'

This quote by His Holiness the Dalai Lama summarizes the plight of the modern world today—"People were created to be loved, and things were created in order to use them. The world is in chaos because everything is the opposite."

In accordance with His Holiness the Dalai Lama's words in the above quote, the Community impresses upon the power of healing through love and compassion.

The children of Jhamtse Gatsal Children's Community come from backgrounds of trauma, abuse and neglect, and often have difficulties with trust or asking for help. Their unresolved issues manifest in ways that can be misconstrued as 'misbehaviours' or 'disciplinary issues.'

The adults of the Community, through love and compassion, help children regulate their emotions and empower them to realize their full potential. At Jhamtse Gatsal, children are taught to sit with themselves, their trauma, and reflect on their past, their actions and their thoughts. Meditation, prayer and mind training classes are some of the many practices which Jhamtse Gatsal incorporates

in a child's daily routine, to educate and nurture their heart, mind and body.

As Gen Lobsang Phuntsok la, the Founder of Jhamtse Gatsal, puts it, "if we can use our pain as a resource; then we can heal not just ourselves, but also others."

Karmayaan and the Art of Reflective Learning

There are multiple avenues throughout the day where community members do this. Every morning, as a part of their daily routine, the children and their teachers practice a reflection technique called *Karmayaan*. This

Meditation and mind training are some of Jhamtse Gatsal's deliberate introspection practices



Jhamtse Gatsal

is a deliberative introspection and selfanalysis tool. *Karma* meaning 'actions and behaviours,' and *Yaan* meaning 'vehicle.' Karmayaan is an essential part of life at Jhamtse Gatsal.

As a part of the Karmayaan practice, students along with their class teachers, spend some time reflecting on their behaviours, actions and consequences, and set their intention for the day. Different classes have different ways of implementing this. The fifth grade class teacher, for instance, uses a variety of resources, including His Holiness the Dalai Lama's talks, to help children understand the global context of attributes often discussed in the Community—gratitude, kindness and

generosity. These spaces are excellent for philosophical explorations and introspection.

These practices help build empathy and compassion in children for all beings. One of the fifth graders writes in his reflection, "I saved a bug today because I could feel the bug's pain. I feel all bugs are as important as people."

Reflections and value-based learning are also incorporated in academics in the way that classes are structured and questions are asked. Especially in English classes, strategies like Text-to-Self and Text-to-World connections help the teacher understand the students' thought patterns and navigate difficult issues. Stories are a great way to discuss deeper topics. For instance, when eighth graders were discussing a story on Climbing Everest, they reflected on how the story is also about 'climbing the mountain of our minds' and scaling the inner summit.

Learn-Reflect-Engage

Jhamtse Gatsal ensures holistic learning through the process of Learn-Reflect-Engage. A culture of learning or receiving information through a wide spectrum of sources, reflecting on that information to make it 'one's own learning,' and then re-engaging with the world from this internalized knowledge shifts a child's mindset from being a 'consumer' to becoming a 'creator.'

In order to encourage a 'creator' mindset, Jhamtse Gatsal emphasizes on cooperative learning in the form of group projects, presentations, student-led discussions and debates, as well as collaborative games.

The unique geography, and a wide variety of responsibilities within the Community, provide ample learning opportunities outside the classroom. From walking to the nearest village to measure speed to discovering the different types of vegetation, root and leaf structures in the adjoining jungle, science classes have never been more fun!

Furthermore, community engagement activities—such as helping with construction, natural cob house building, or working on the organic farms—become avenues to bring alive the knowledge acquired within the classrooms, from concepts of perimeter and area to the nuances of effective communication skills. Such a learning process helps children become creators and not just consumers of information.

Real education requires full presence; it requires active participation of the heart, mind and body, not just passive listening.

Here's an example from the Community that kindles the 'creator' mindset in the children. The Monpa tribe, to which the children belong, practices 'Lakpar,' roughly translated as 'bringing hands together.' In the villages, when a family needs a new house, the entire village comes together to help them build it. Inspired by this tribal practice of the Monpa people, the Community worked together to construct one of the principal buildings on campus.

This process of working together helped forge stronger relationships in the Community, encouraged team building and fostered creativity in children. Even today, when someone visits the Community, the children point at the building with pride and eagerly talk about how they helped build it. This practice instills a sense of ownership and belonging in the children— two aspects that are fast disappearing in our faster-paced world.

Engaging with Nature to Reengage with the Self

By actively engaging in the learning process rather than just absorbing it in a classroom setting, children gain personal insights

Educating the heart, mind and body



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and embody the learning in their own lives. Ecological learning forms a part of engaged pedagogic practices in the Community. Here by learning from nature, children like Kirti are encouraged to empathize with ants, and the school's kindergarteners to instinctively pick up earthworms and put them in the forest to save them from being trampled upon as they wriggled out of the soil one rainy day.

Taking part in physical activity, participating in sports and games, eating healthy and being engaged in household chores further ensure that the children are hale, hearty, and healthy.

Inclusive education cannot simply mean being inclusive of children with diverse learning styles. It must be inclusive of several aspects within oneself— the heart, the mind and the body.

Ken Robinson, a well-known educationist, succinctly puts it this way. "As I see it, the aims of education are to enable students to understand the world around them and the talents within them so that they can become fulfilled individuals and active, compassionate citizens."

Real education requires full presence; it requires active participation of heart, mind and body, not just passive listening. Jhamtse Gatsal strives to give children a safe and

stimulating environment to experiment with real learning.

Such an environment often yields remarkable results; say, when a child decides to feed ants rather than kill them, or when an older child reads bedtime stories to a younger child and tucks them into bed, or even when children snuggle puppies inside their jackets into the classrooms to keep them warm.

Their gentle ways of showing compassion may be small, but perhaps, like Mahatma Gandhi said in this famous quote, "In a gentle way, you can shake the world."

Note: * Name has been changed to protect the child's privacy.

Meenatchi Prabhu is a former teacher who had left the Community in 2020, prior to the onset of the pandemic, to do a one-year Master's Program in Journalism. She has now returned and leads the marketing and media initiatives of Jhamtse Gatsal; in her earlier role Meenatchi was the editor of the student newspaper 'The Voice'.

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Experiential Learning and Social Science Education

Jitu Mishra

he last couple of years have been a period of reflection. Every day the facts changed, what we heard in the morning was no more the same in the evening. There were layers of perspectives, from local to national and global, many contradicting each other. We learnt to adapt to new ways of life, and critical thinking emerged as an essential for thinking about sustainability. In this dynamic world in which we live now, only technological adaptation is not adequate. We need human connection and exposures to grassroots communities. Understanding of local history, culture and geography is essential to finding our place and position in a fast-changing world.

To facilitate such understanding, Virasat E Hind Foundation (VEHF) was established in Ahmedabad to work in the area of local history education among middle and high school students. As a part of the pilot study thanks to the support of the district administration of Ahmedabad, VEHF carried out research and developed a book titled 'Maru Viramgam' on the history and heritage of Viramgam, a medium-sized town in Ahmedabad District.

Enriching Social Sciences Learning with Local History

Viramgam is rich in heritage from the medieval era. It is located in the transitional zone between the marshy lands of the Little Rann of Kutch and the plains of Gujarat. The region receives moderate amounts of rainfall. But due to the soil condition, immediately after the monsoon season, the water bodies of the area dry up and it faces severe water shortage for the rest of the year.

Understanding this problem, the erstwhile rulers and mercantile communities had created a large number of ponds and step wells in and around the town, the prominent one among these being the 12th-century Munsar Talab, a large tank surrounded by hundreds of miniature temples.

At the time of the freedom struggle, Viramgam had drawn a lot of attention. It is supposed to the place where Mahatma Gandhi had made up his mind to begin the experiment of non-violence in India, but later it was shifted to Champaran in Bihar.

However, because of the heavy emphasis on regional and global history, the school going students of the town are not aware of local history. As a result, they don't find a connection between what they learn from textbooks and in their daily life. A sense of belongingness and taking pride in the place of their upbringing is lacking.



Jitu Mishra

Opinion

'Maru Viramgam' was a project initiated by VEHF to sensitize school students towards their history and heritage. On the day the book was released, VEHF also curated a heritage walk and exhibition on local history and heritage for both the citizens and school students of the town.

Before the publication of the book, I had engaged around 100 Grade VIII students from Rachana School of Ahmedabad in an experiential learning project. They had made three visits to Viramgam as part of this project. Each visit lasted three to four hours excluding the travel time.

The children were divided into groups and each one was led by a social science teacher from the school. During their visits they were given exposure and training on civics and local heritage. Students interacted with the local communities to understand their association with Munsar Talav, and the various civic issues faced by them. Most of the civic issues and the idea of water management are covered in their class. Here they had practical exposure. At the end of each day's visit, they summarized their experiences and learnings.

I also facilitated an art mela for school kids on various themes related to local heritage and history as a part of this process. More than 200 students from various schools of Viramgam participated in this mela, in which students and teachers of Rachna School worked as volunteers.

Textbooks or Experiential Learning?

We learnt from this experience of Viramgam that textbooks have become more or less obsolete. Today's education demands experiential learning. This is especially true of learning social sciences at the school level.

Social science subjects are not preferred among most of the students in schools. In the natural sciences, students get to do experiments. In languages they see their application in communication and in creative performances such as drama and scriptwriting. But social sciences disciplines have remained as subjects where one just remembers facts. Students in most cases find these boring and meaningless.

However, social sciences can be made interesting and engaging if we introduce



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experiential learning systems. Students are to be facilitated on how to identify problems and work on their probable solutions.

For example, understanding of climate and landscape is a part of the middle school geography curriculum. But in schools, the learning of these concepts remains at a theoretical level. Students need to go out into the field and engage with nature and people.

Immersive Travel and Experiential Learning

Here I would like to illustrate the connects between immersive travel and experiential learning with my experiences as a facilitator of learning trips to Badimaha, a remote village in the tribal dominated Kandhamal District of Odisha. Badimaha is located near the well-known mountain gorge Mandasuru in the Eastern Ghats. It is a biodiversity hotspot where the weather changes every moment. Today, because of its natural wonders, it draws a large number of tourists throughout the year.

But located in a rainshadow region, the villagers of Badimaha face acute water scarcity. Recently they have tried to bring in a solution by laying bamboo pipes for almost 800 meters from a hilltop to the village. This video link discusses Badimaha.

For middle school students, Badimaha offers a platform for experiential education. Here students get a chance to appreciate how people in rural India are solving their perennial problems through community participation; now these extend to fighting climate change through appropriate natural resource management.

Mangalajodi is another place where we are trying out experiential learning through immersive travel. It is a marshy wetland in the fringes of Chilika lagoon, located at a distance of one and half hour drive from Bhubaneswar. An internationally renowned birding destination, Mangalajodi is a great



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place for experiential education. It once used to be a hub of poaching; today Mangalajodi is transformed. Those who killed thousands of birds for their selfish reasons have today become their saviours.

At Mangalajodi, students learn multiple facets of the fragile ecosystem, food chain, migratory and resident birds, community-driven tourism and issues related to sustainability through participation in nature trails and interactions with communities. More details about the work at Mangalajodi can be found here.

To conclude, experiential learning is one of the most important ways to excite and engage students in the social science disciplines. If implemented properly, such pedagogy has the potential to transform the way we look at and transact teaching and learning the social sciences at the school level.

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Community-led Experiential Learning

Preparing Children for Life Through Life

Parminder Singh

ow to develop knowledge and understanding that empowers children to act?

How to develop the mindset of possibilities and hope?

How can education spark and enable change in a society?

How can education keep the idea of democracy alive and evolving?

How to help children understand personal leadership?

How can we personalize the learning process and its outcomes for each child?

Above are some of the questions that we, the educators, have been deliberating on for quite a long time. Some of us have figured out our own ways of making it happen. Making education contextual and personalized for children has been one of the most important aspirations that all national education and curriculum documents aim for. But, it has been a challenge. One of the major challenges is the classroom and textbook centered learning pedagogy. To make it happen requires more than the intent and willingness. It requires a deep understanding of the learning process, educational goals and curriculum, and systemic understanding of society.

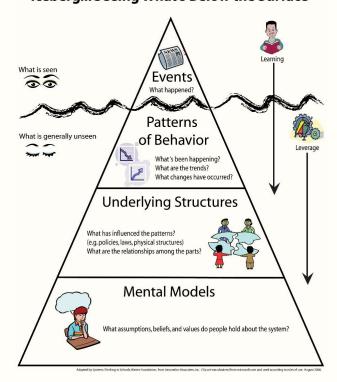
Seeing and Thinking Systemically

Problems cannot be solved at the level at which they are created. Leverage lies in

reworking on the structures and underlying assumptions. So far, we have been working within the existing structures and assumptions in schools. Existing schooling structures and processes were designed to address the needs of a different time-period. It was an outcome of the assembly-line factory model of thinking.

The present system might have achieved its objective of schooling children efficiently but there is a difference between schooling and education. One of the biggest drawbacks of the present schooling system is that there is no space for a child's uniqueness,

Iceberg... Seeing What's Below the Surface



experiences and expressions. It is based on the principles of batch processing i.e. one system fits all. I am not hesitant in saying that it is an unfair and unjust system for children and leads to inequality very early in their lives.

Reinventing Education

We do see some successful case studies of personalized skill building programs for children in mathematics, reading, assessment, sports, etc. in schools. But, if we aspire to make education as a whole a truly contextual and personalized program for children, then we need to go beyond these skill building programs. Education is more than skill building. It is about building understanding, knowledge and character, and it all begins from the immediate and real world of the child. To make this a contextual and personalized process for children, we need to connect what we teach in schools to the real world.

One of the Nai Taleem principles of using productive work from the local context of the child as pedagogic resources for teaching and learning is really powerful. It develops the productive and creative capacities of children in a very concrete way.

One of the effective ways of doing this is to use the local context and experiences of children as pedagogic resources. Experiences that children go through in their immediate surroundings, i.e., homes, neighborhoods, villages and cities are unique and very personal to them. Therefore, these have the potential of making teaching and learning truly personalized, authentic, real and contextual for children.

The local context of the child, i.e., her home, neighborhood, village and society is real, and integrated, dynamic, personalized and authentic for the child. It is also where the child feels safe and assured in her immediate surrounding. She is also fully engaged/immersed in it and is continuously trying to figure it out even before joining the school.

If we can design teaching and learning in and around the local context of the child, that will make the purpose and process of education very personalized and authentic for her. The more individualized and authentic the design of the learning experiences, the more personalized and real does education become. This not only leads to a better understanding of curricular concepts and skills but also develops a systemic understanding of her local context. This prepares her for life.

Personalized Experiential Learning Cycle

Authentic and personalized experiential learning cannot just happen inside the classrooms and schools, nor can the teacher make it happen alone. As an African proverb says, it takes a village to educate a child. Similarly, Experiential Learning has to be designed in the community around real-life experiences with real experts and meaningful content. An educator's role is more of a learning designer and facilitator.

In this context, it might be pertinent to discuss Dr Kolb's Experiential Learning Cycle. This cycle has four stages:

- a) Concrete Experience, i.e., learning by experiencing. It is about learning by getting completely immersed in the experience. The idea is to experience the experience.
- b) Reflective Observation, i.e., learning by observing. It is about learning by observing and reflecting on the experiences that one has gone through, and being open to new and different perspectives and possibilities.
- c) Abstract Conceptualization, i.e. learning by

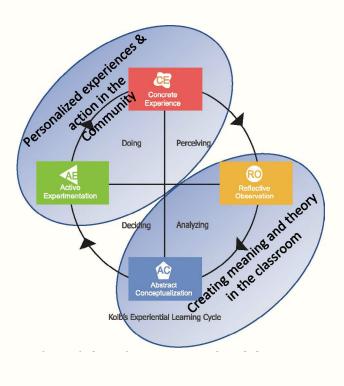
thinking. It is about learning by collecting and analysing information and data and making inferences based on them. It is about creating new theory and connecting it to existing sources of knowledge.

d) Active Experimentation, i.e., learning by doing. It is about learning and deciding what to do and then doing it. It is the ability to take decisions and act on these.

In a personalized experiential learning process, experiencing and doing happens in the local context/community of the child. Reflections and conceptualization for constructing meaning and theory can happen inside classrooms. The role of an educator is to design and facilitate this process of experiential learning and to make it as personal and authentic as possible for each and every child. The key lies in connecting the teaching learning process to the personalized and real world of the child.

Design Principles for Community-led Experiential Learning

- a. Designing teaching and learning around real experiences in the community.
- b. Using real-life experiences as a pedagogic resource for developing curricular



concepts, skills and values. Productive work from the local community can be an engaging and challenging pedagogic medium for teaching and learning. In our community school in Haryana, we are trying to use natural farming as a pedagogic medium for teaching and learning. This summer children got vegetables seeds from the school, which they planted in their own farms and gardens with the support of their parents. The idea is to encourage children to have their own family vegetable gardens. This is one more step towards making learning more personalized for children.

- Teacher are designers of learning processes and facilitators of learning experiences.
- d. Teachers need to have a good understanding of the local context and the community. Experiential learning teachers need to be actively engaged in the community. In our community school, all our teachers are from the same village and hence, they understand the children's context and culture very well.
- e. Teachers need to engage real-life experts from the community in teaching learning process. Our first craft experience of making diyas (oil lamps made out of mud) on Diwali was at the local village potter's place. He is also a parent in our school. Children not only learnt how to make diyas but also developed respect for and pride in local artisans and culture.
- f. Shared ownership of teaching learning processes by teachers, parents and experts from the community is a must.
- g. The school is to be run and managed based on the principles of trusteeship, collective ownership and participation. School finances and other important decisions are taken collectively by the School Management Committee(SMC), which comprises of parents, community

members and experts. There is a village finance audit team which audits expenses and other expenditures every month.

h. School is a center for learning and development for the whole community. Other than education, the school SMC is actively engaged in improving the quality of the public health center in the village, sports, organic farming, tree plantation, etc.

Gandhi's Nai Taleem, Experiential Learning and Beyond

The principles underlying Gandhi's Nai Taleem have the potential in providing a strong foundation and new direction to our present education system in making it personalized, relevant and authentic for children and teachers. We need to invest time in understanding these principles especially in the present context. It can revolutionize not only education but also society and that too in a very silent, organic and non-violent way.

What is more, the revolutions emerging out of such an educational process will be based on local needs and aspirations, and will be led by local people themselves. Gandhi's Nai Taleem is far deeper, relevant and doable than any of the present experiential curriculums like IB, Cambridge, etc., that we have.

One of the Nai Taleem principles of using productive work from the local context of the child as pedagogic resources for teaching and learning is really powerful. It develops the productive and creative capacities of children in a very concrete way. It also develops systemic understanding of the local context. Our experience of using natural farming as a pedagogic medium for teaching and learning in our community school is very encouraging.

The principle of teaching and learning in the mother tongue in the elementary school is equally important for making education relevant and contextual for children. When children use their mother tongue to express thoughts and feelings, it is not only more effective but also ensures that they develop respect and pride for their own culture and identity.

Authentic and personalized experiential learning cannot just happen inside the classrooms and schools, nor can the teacher make it happen alone.

Another important Nai Taleem principle is about making schools financially self-sustaining. Though it is quite challenging, it has the potential of making education truly creative and productive. It can also build immense confidence and respect - both among children and teachers. Making the school financially self-sustaining is challenging, but it is a challenge worth taking. This is where we as a community school are struggling, but we are hopeful and confident of making it happen.

Parminder Singh is the founding trustee of Disha India Education Trust. Disha India is in the process of setting up its first Communityled Experiential School in a village in Karnal district of Haryana.

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Disha India Education Trust

"What Should We Do in Class Today?"

Towards an experiential education?

T Shivanand

A Historical Conundrum

I am already excited since it involves a short outing to a neighbourhood temple. In my preparation for studying local history with the seventh grade, I have planned several lessons but the temple outing excites me the most now. It is an obvious choice for exploration since it is a slice of time in the landscape that has remained for a few hundred years. There are other possibilities further afield in a small town about ten kilometres away, but when I suggest a class trip the students unanimously vote for the neighbourhood temple when I propose the options.

I'm suspicious of the excitement, and maybe a bit carried away by it as well, so here I am. There is the logistics planning, of course, talking to other teachers and taking the entire morning off from other classes, thinking of water and snacks. But the excitement for me is the bit of the unknown, the possibility of a discovery, precious and new to my understanding.

In the past week, I had tried to research the temple in the local district gazetteer and it had yielded very little information. I then made a reconnaissance visit to check out possibilities and chatted with a few residents of the neighbourhood who gave me different stories of origins for the temple. The temple itself was rather nondescript and somewhat decrepit. But it was clearly old, though the age was debatable. The architectural plan was a key in understanding its historicity.

But I had to consult more knowledgeable people and sources on the matter. A plan slowly formed in my mind that after some exploratory activities in around the temple, we can sit in the shade of the big banyan tree next to the temple and continue our class and take a break.

The run-up to the temple visit involved discussions around the understanding of historical time and the nature of evidence to be considered in estimating time. These are by no means simple ideas but are often implicitly expected of a seventh grader in terms of knowing dates and events. We had sessions of mapping the neighbourhood settlement from the children's collective memory, comparing these with topographic maps published in the late 1960s, planning and conducting interviews with people from the village to look at collective memory of physical changes and of people in the community.

Inquiry-based, experiential learning approaches, with their constructivist focus, have the potential to be transformative educational experiences at scale and over time.

The temple represented a material witness which went beyond the age of the oldest person in the community. It is referenced in local lore around known historical events

that date a couple of hundred years at least. In all these sessions, I had introduced ideas and terms related to historical time, the nature and variety of sources to reconstruct history, and the balancing act of composing a historical narrative from these sources. There were many interesting points in the preceding weeks, including situations where children encountered contradictions in oral narratives and had chanced upon the idea that perhaps it could be resolved by considering other sources.

On the day of the expedition, I look forward to the learning possibilities for children in revisiting these ideas and hope that some of them would come together. I am also excited for myself, since there are many unresolved questions in my own mind regarding the origins of the temple and I am looking forward to the possibility of learning something new. The class activity planned that day is split between two groups. One group of students takes measurements and makes an approximate layout of the temple. Another group simultaneously makes pencil rubbings of sculptural reliefs of their choice on the pillars and wall skirting the temple's perimeter walls. The groups switch half way and experience the other activity as well.

At the end, we regroup, sweaty and expectant under the banyan tree, and discuss the morning session. The rudimentary application of the comparative method leads to inspecting the temple layout plan against others available in a visual compendium of architectural plans of south Indian temples. This results in a rigorous, but eventually inconclusive, debate on the possible age of the temple, with one group insisting on the 12th century by rooting for one possibility, while others think it is nothing like any representation of temple plans in the book. The pencil rubbings are interesting but not particularly helpful in our discussions. The competing oral narratives also complicate the picture.

One child draws our attention to the observation that the topographic map from the 1960s definitely had the temple located on it and concludes that people included it there since it was already there, so it must be at least that old. Someone else reminds us of the oral stories where the temple appears in accounts of a well-documented historical encounter from two hundred years back, so it must be older than the map. Another student even questions the veracity of the map!

If experiential learning and constructivist approaches are the way ahead, then we need teachers who are lifelong learners.

In the end of the class, I had a few imaginative exercises planned, including some writing in groups imagining the construction of the temple, where the students had to bring together the experiences of the past few weeks and ask questions as well - where did the stone come from, how did they cut the stone to fit so neatly, who made the plans, who put the stones together, where did they go after they finished the temple?

Is It Only History?

The challenge with a history class is to bring back the past in exciting and imaginative ways. At the same time, there can perhaps be some principles that can be drawn from the class to extend to any exploratory learning context irrespective of subject, school, or geography. We can take a math class and explore the nature of solids by way of examining the boundaries of known regular solids such as cubes and simple polygons in three dimensions and extending observations to make other solids with more edges, vertices and faces. We can comparatively examine the solids and arrive at interesting mathematical results that could link them together.

In this process of exploration and experimentation, we can learn new mathematical symbols and words that can be associated to make meaning in other ways using principles that we are familiar with already. We can explore the use of a variety of materials to make polygons; we can experiment with surface area and volume and extend these explorations in many other directions. The same can happen with a science class looking at the acidity of various foods in our diet, or a language class exploring the sound of words in poetry, and the experience of growing food in a small kitchen garden, exploring seasons, water, soil, pests, predators of pests and farmers' lives, that are part of EVS curricula.

In the tension between accountability to administrative hierarchies and the joy of observing learning in classrooms, the former often wins.

The core of an experiential classroom is not in the curation of unique experiences, but the processes embedded in the exploration that enable multidimensional learning. The example of the experiential history class shared earlier is to illustrate the possibilities of introducing even middle school children to basics of the historical method, which allows them to approach history as a process of creating knowledge that is continuous and understand the limits of this process rather than accept it simply as a set of dates and events. In the example, it wasn't particularly important for the seventh grade that we definitely dated the temple, but that we arrived at a way of understanding the approach to dating it.

An aim of inquiry-based learning is to enable continuous learning, so it should be inherently process-focussed. This focus does not come at the expense of knowledge. In fact, it requires children to bring to focus previous learning as in the situation where children recall seeing the temple on the topographic map. The space for children to ask clarificatory and directional questions in shaping the learning process is another key essence of an inquiry-driven² process.

An oft-repeated complaint about planning for an experiential learning class is the perceived complexity and preparation involved. However, the increasing popularity of concept mapping and Bloom's Taxonomy³ in Indian education circles has come in handy in translating constructivist² instructional scaffolding^{2,4} approaches to lesson plans. At the same time, there should be discussions around its application in Indian classrooms which are alive to the socio-economicpolitico-cultural contexts of the adults and the children involved in the learning process. Inclusive approaches that stem from an active understanding of the role of caste, disability and other pervasive inequities on the experience of learning, along with diversity of childhoods in the Indian context, need to be the next paradigm shift in shaping experiential classrooms^{5,6}.

Another concern around experiential learning contexts is around assessment. The creation of assessment opportunities, both formative and summative, can be plentiful in an experiential learning class. An immersive learning experience should free the child from the fear of assessment by taking away the focus from a single summative exam. The role of fear in complicating the learning process, often to detriment, has been widely understood for some time now. An experiential learning paradigm opens up opportunities for the educator to examine minimizing the role of fear in learning contexts. This is particularly true of the fear of consequence in learning experiences, often around asking questions, and expectations of performance in exams.

The Teacher: Learning and Autonomy

The central role of the teacher or learning facilitator in enabling experiential learning spaces may be self-evident in the preceding paragraphs, but the question of teacher motivation remains to be addressed. What motivates a teacher to spend time and effort to prepare for an inquiry-based class where she has to be responsive and alert, engage students who may vary in number and energy, encourage questioning and support contextual directional decisions in inquiry, anticipate physical and material needs, provide clarificatory, emotional and logistical support when needed, manage to note observations and offer formative assessments.

While this listing may sound daunting, many of these are already part of a typical teacher's life in school and require some alertness to certain aspects of her work relevant to the inquiry-driven space. This description of a teacher approaching an inquiry-based class largely applies to parenting as well, particularly in early childhood. Parents are our first teachers. What motivates parents to instinctively support a child intensely involved in learning to navigate the world every moment of its waking life?

Returning to teachers, the oft-quoted response to the question of motivation is the joy of observing children participate and learn in the classroom. While this is important, it can also be observed that teachers often transact lessons around the same context in textbooks over several years to different groups of children under demands of demonstrating learning outcomes through test scores. In the tension between accountability to administrative hierarchies and the joy of observing learning in classrooms, the former often wins. In this context, it may be worthwhile to highlight two key parameters of several that are not often discussed while considering a teacher's role in an experiential learning space. The

first is the teacher's personal relationship to learning, and the second, teacher autonomy.

An experiential learning paradigm opens up opportunities for the educator to examine minimizing the role of fear in learning contexts.

My experience as a teacher has been a personally rewarding one, and a core part has been the joy of discovery and learning that is my own, independent of children and alongside them. In nearly a decade and a half of teaching in an alternative school near Bengaluru, I have repeated a chapter on evolution to thirteen batches of twelfth grade biology students. Each time, I have discovered new openings to the topic by exploring different approaches to it. One way is learning about fascinating examples of evolution from across the world, accessing studies and material beforehand and then design an inquiry-based lesson around it. Another way may begin in a purely comparative and observational manner, based on living examples available on the school campus and beyond.

While I realize that one aspect of this experience is likely to do with my training in biology, where I had advanced formal expertise, perhaps more important is my own life-long motivation and interest in learning. Learning excites me. The moment of insight in learning is perhaps the most intense emotional experience I identify with and one I often seek to gratify in my personal and professional learning spaces. But commitment to life-long learning is not restricted to teachers in alternative schools, but can be found in teachers everywhere⁷.

The autonomy to take decisions in planning lessons and content to support inquiry-based learning spaces for children is the other side

of the coin to the personal relationship to a teacher's own learning. The autonomy to take decision in shaping a learning space often follows my own trajectory of learning. In my experience, I have also observed that autonomy is indivisible from the relationship of responsibility that I have with the child's learning process. This includes obvious signposts like awareness of time availability in the course of a year to plan the distribution of lessons effectively but not always feel constrained by the deadline, to more subtle ones such as sensitivity to the individual needs and contexts of children in the classroom. Awareness of these parameters provides me with the necessary preparation to approach any learning context without constant dread of making a mistake.

An important factor in my experience of autonomy and responsibility has been my conversations with colleagues and recognizing their key role in shared discussion spaces that have over the years informed my philosophy of approaching learning spaces. Subject-related discussions with colleagues in domain-interest groups have also contributed by means of sharing ideas, finding validation and facing critiques of particular ideas or models. The initiation of domain-specific communities of practice8 and teacher-led volunteer learning forums9 in various school networks across the country has been largely a consequence of recognizing the potential of peer groups to sustainably nurture learning in the long run.

There has been recognition at the systemic level that teachers need to be encouraged to discover learning for its own sake as increasing school numbers will attract a steady proportion of teachers who accept the role as a job to be done. If experiential learning and constructivist approaches are the way ahead, then we need teachers who are life-long learners and experience autonomy in systems which are responsive to these needs while nurturing a strong sense

of responsibility to the process. While there have been many experiments of introducing experiential learning approaches in large scale systems such as the government school networks in different states, the long-term sustainability of such efforts involving individual teachers and schools would be in question without the active involvement and simultaneous reform of the existing cluster, district and state-level learning support frameworks such as DIETs and SRTs.

From Learning to Education

Inquiry-based, experiential learning approaches, with their constructivist focus, have the potential to be transformative educational experiences at scale and over time. When the relationship between the child-learner, adult-learner, whether teacher or parent, and the school systems is redefined under this learning paradigm, the potential impact on society can be consequential.

The core of an experiential classroom is not in the curation of unique experiences but the processes embedded in the exploration that enable multidimensional learning.

A key assumption here is that participants in this process have shared aims and core humanist values, and a shared understanding of approaches and outcomes, such as a commitment to achieving well-being for all. In reality, we have diverse personal and community values, and ways of living. In such a scenario, how do we commit to the broader umbrella of experiential education, with its disruptive potential to status quo, rather than restricting experiential learning as a classroom tool?

In case of teachers and schools, there is often a wilful focus and messaging on particular approaches and learning outcomes, rather than considering the long-term implications of experiential education.

This narrow focus can lead to inquiry-based approaches being the next buzzword in education circles or as a leading part of the branding of education institutions, especially in an era of burgeoning private education institutions. Parents in certain contexts may end up recognizing it for similar reasons.

An aim of inquiry-based learning is to enable continuous learning, so it should be inherently process-focussed.

To extend this argument, does the introduction of experiential learning approaches have a real impact, for instance, on perceptions of board exams and scores achieved in those limited, performance-oriented races? This is but one example of the limitations of narrowly defining the scope of inquiry-based learning to classroom approaches. I can only hope that this will not be another case of squaring the circle.

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उत्पादक काम, भाषा और ज्ञान

अनिल सदगोपाल

जिस उत्पादक काम, भाषा और ज्ञान के शिक्षाशास्त्र की बात करने वाला हूँ, उसके पीछे तजुर्बा है; होशंगाबाद जिले के एक गांव में किये गए हमारे प्रयासों का | इस गाँव की आधी आबादी आदिवासी और दलित थी; १५% मुसलमान और बाकि आबादी दूसरी जातियों से थी | हमने इस गाँव में छः साल तक नयी तालीम के प्रयोग किये और इन्ही प्रयोगों के अनुभवों की कहानी मैं आपको सुना रहा हूँ |

आसपास के गाँवों के करीब १२ बच्चे इकट्ठा हुए, परन्तु उस समय माहोल ऐसा नहीं था कि इनमें लड़िकयां हो। मैं आपको १९७२ से १९७७ के बीच की बात सुना रहा हूँ। तो वो सारे लड़के ही थे और वो ऐसे परिवारों से आये थे, जहां माता-पिता खेतिहर मजदुर थे या फिर बहुत गरीब किसान थे। उन्होंने सरकारी विद्यालयों से चौथी-पांचवी-छटवी तक पढ़ा था और उसके बाद विद्यालय की पढ़ाई छोड़ दी थी।

काम ये था कि हमारे पास खेती है, और शिक्षक और बच्चे मिलकर एक समूह में खेती करेंगे | वहाँ गाय भी थी, तो बच्चो ने शिक्षको के साथ मिलकर गाय पाली, बढाई का काम भी सिखा और सिंचाई के पम्प की मरम्मत भी सीखी | सीखने का सिद्धांत ये था कि सारा काम खुद करेंगे और मिलकर करेंगे | और इसका जो उत्पाद होगा उसको बाजार तक ले जायेंगे, बेचेंगे और इन सबका हिसाब रखेंगे | इसके अलावा कोई पाठ्यपुस्तक नहीं थी, यह पाठ्यपुस्तक विहीन कार्यक्रम था |

जब शुरुवात हुयी तो हमने बच्चो से कहा- यहाँ पे छः-सात एकड़ जमींन है, और इसमे से एक एकड़ नाप लीजिये| उसी एक एकड़ में खेती करेंगे और अभी मूंगफल्ली उगाने का मौसम है, तो उसी की खेती करेंगे | तो बच्चो में बहस शुरू हो गयी की एक एकड़ कितना होता है | बच्चे पता लगाने में जुटे की एक एकड़ में कितने वर्ग गज होते है, तो उसकी पढ़ाई शुरू हो गयी | बच्चो ने पूछा की ये वर्ग गज क्या होता है, तो रेखागणित की पढ़ाई शुरू हो गयी | कागज के ऊपर समझ बन गयी, तो अब जमींन पे नापना था | कैसे नापे ? तो एक-दो दिन बाद बातचीत करके बच्चो ने मीटर से जमींन नापने का तय किया | और अब बॉस की कम्पास जैसे मशीन बनाई | उसको वहाँ पे पर्काल बोलते हैं | अंत में उन्होंने जमीन एक आयत के रूप में नापली |

अब कैसे काम किया उसे डायरी में लिखना था, परन्तु उनकी मातृभाषा हिंदी नहीं थी, बुन्देलखंडी थी | तो सवाल खड़ा हुआ की किस भाषा में लिखेंगे | अंत में बच्चो ने तय किया की बुन्देलखंडी में लिखेंगे, जो आता है वही तो लिखेंगे | तो उनकी डायरी देवनागरी लिपि में मगर बुन्देलखंडी भाषा में लिखी जाने लगी | हम लोगो ने ये तय किया की हम समूह में बैठकर उन

सबकी डायरी पढेंगे | उसमे चर्चा भी होगी, क्या सिखा क्या नहीं सिखा; मगर उनकी भाषा की गलतियाँ नहीं ढूढेंगे | क्यों कि उससे बच्चो में लिखने का जो सहज भाव पैदा हुआ है वो कुंठित हो जायेगा | व्याकरण, मात्रा, शब्दों का क्रम आदि छोड़कर सिर्फ बात समझ में आ रही है कि नहीं, सिर्फ उसपे जोर देंगे | सिखना जरुरी है, आपने नापा तो क्या सिखा | और शिक्षक की भूमिका थी समय-समय पर ऐसे प्रश्न उठाओं कि उनको और सोचना पड़ जाये |

तो बात आगे बढ़ी, मूंगफल्ली बोनी थी तो उन्होंने पूछा की कैसे बोनी है | हमने कहा हमको तो नहीं पता। फिर बच्चो ने जा के गावों के किसानो से पूछा की एक एकड़ जमीन में कितनी मूंगफल्ली बोनी है | बोने से पहले क्या काम था, मिट्टी की तैयारी कैसे करनी- वो सब तो गाँव के बच्चे थे तो काफी कुछ आता था, जो नहीं आता था पूछ लिया | और उन्होंने बाकायदा हल जोतकर जमीन तैयार करी और मूंगफल्ली बोई |

बच्चे जब-जब उत्पादक काम में जिस मुकाम पर पहुचंगे, उस मुकाम पे जो प्रश्न उठेगा, जो स्वाभाविक होगा, उत्पादक काम से जुड़ा हुआ होगा, उस पर वह पढाई करेंगे, पुस्तक पढेंगे |

खाद डालने की बारी आई, तो उन्होंने पता लगाया की यूरिया डाली जाती है | हमने उनसे पूछा की क्यों डाली जाती है, उसमे क्या होता है, उसको डालने से क्या फायदा है | उनको पता नहीं था | फिर उन्होंने जाकर किसानो से पूछा | मगर उनको भी पता नहीं था | तो पता नहीं चलने पर, उन्होंने निर्णय लिया की वो ब्लाक के कृषि विस्तार अधिकारी (ए. इ. ओ.) से बात करने जायेंगे | जब वो सब पूछने गए तो चपरासी ने रोका और पूछा की तुम हो कौन | उन्होंने कहा की हम विद्यार्थी है | फिर उसने कहा की तो स्कूल जाओ, यहाँ क्या काम | तो उन्होंने कहा की हम तो ए. इ. ओ. साहब से मिलकर ही जायेंगे | चपरासी ने मिलने नहीं दिया तो वे रो कर लौट आये |

उसके बाद उन्होंने फैसला किया की दोबारा जायेंगे और इस बार चपरासी से बिना पूंछे अन्दर घुस जायेंगे | अगले दिन दस विद्यार्थी बिना पूंछे ऑफिस के अन्दर घुस गए | ए. इ. ओ. के सामने कहा की साहब हमारे बात का जवाब दीजिये, हम कुछ पूछने आये है | फिर अपना सवाल उनके सामने पेश किया | सवाल सुनकर ए. इ. ओ. ने कहा की तुमको यूरिया डालने से मतलब है या फिर यह जानने में की यूरिया से क्या होता है | तो बच्चो ने कहा कि हम तो तब डालेंगे जब मालूम पड़ेगा के उसमे क्या होता है | तो उसने कहा की हमारे पास टाइम नहीं है, यह छपी हुयी सरकारी पुस्तिका है, इसे ले जाओ | तो हिंदी में छपी हुयी एक गाइडलाइन ले आये और उसको पढ़ा | उसमे लिखा था कि यूरिया में नाइट्रोजन होता है | तो उनको हमने बोला की दसवी कक्षा की रसायन शास्त्र की किताब खोलो, और फिर केमेस्ट्री का सबक चालू हो गया |

सिद्धांत क्या है इस शिक्षाशास्त्र का ? बच्चे जब-जब उत्पादक काम में जिस मुकाम पर पहुंचगे, उस मुकाम पे जो प्रश्न उठेगा, जो स्वाभाविक होगा, उत्पादक काम से जुड़ा हुआ होगा, उस पर वह पढ़ाई करेंगे, पुस्तक पढेंगे | तो नाइट्रोजन क्या है, सल्फर क्या है, पोटाशियम क्या है- उन सब की चर्चा हुई और जो वर्गीकरण टेबल है, उसकी भी बात छिड़ी | तो खेत में यूरिया डाल दिया और यहाँ पढ़ाई शुरू हो गयी कि अलग-अलग तत्व क्या होते हैं, उनमे क्या फर्क है; जितना पढ़ना उस समय जरुरी था | अभी केवल दोस्ती हो रही थी रसायन शास्त्र की वर्गीकरण तालिका से |

मूंगफल्ली जब बड़ी हुयी तो उसके निचे से एक फुल जैसा निकला, उसकी शाखा मुड़ी और वापस मिट्टी में चली गयी | यह गाँव के बच्चे जानते थे, मगर एक बच्चे ने पूछ लिया की यह क्या है, ये क्या चीज है | हमने कहा कि नहीं मालूम, पता करो | तो उन्होंने वनस्पति शास्त्र की किताबे खोली | दसवी- ग्यारवीं-बारहवीं कि किताब खोली; उसमे उत्तर नहीं मिला | फिर हमने कहा किसी बड़ी पुस्तकालय जाओ | दो-तीन बच्चो को शहर के बड़े पुस्तकालय भेजा गया | वहाँ पे भी उनको उस प्रश्न का उत्तर नहीं मिला | फिर हमने उनसे कहा की तुमने बहुत ढून्ढ लिया, आओ बात करे की फूल क्या है | और फिर बॉटनी का सबक शुक्त हो गया |

पढ़ते-पढ़ते और काम करते-करते मूंगफल्ली की फसल तैयार हो गयी और उसको काटा गया और सुखाया गया| मूंगफल्ली को बेचने का टाइम आया | अब बहुत बिकट सवाल आ गया | म्ंगफल्ली बेचेंगे तो जितना हमने खर्च किया, जिसका हिसाब रखा है, उतना पैसा वापस होगा की नहीं होगा। बेचेंगे तो पैसा वापस आएगा की नहीं | तो तब बेचेंगे जब अच्छा दाम मिलेगा | तो कैसे मालूम करेंगे की अच्छा दाम कब मिलेगा | तो वे बाजार में जा कर पूछ कर आ गए। उतने में तो घाटा हो जायेगा, तो सोचा की इंतजार करेंगे, दाम जब बढ़ेगा तब बेचेंगे | तो उन्होंने सोचा की हर शुक्रवार जब बाज़ार लगता था, वहाँ जा के दाम का पता लगायेंगे। तो हमने उनसे पूछा की कैसे पता लगाओगे की दाम बढ़ने वाला है कि घटने वाला है | यह तो मालूम नहीं है; तो उनको ग्राफ बनाना सिखाया गया | ग्राफ क्या होता है, ग्राफ की X-एक्सिस और Y-एक्सिस कैसे बनती है और कैसे हर शुक्रवार का आकड़ा एक ग्राफ के रूप में देखा जा सकता है | ग्राफ में बढ़ते हुए दाम का जो स्लोप है, वह कम हो रहा है, तो दाम और तेजी से नहीं बढ़ने वाले, अब समय वह आ रहा है जब हम बेच

दे, नहीं तो घाटे में चले जायेंगे | ये सब कैसे तय किया जाता है ग्राफ देखकर, ये सब बच्चो ने अपने से किया | जो ग्राफ बनाने का काम ग्यारवीं- बारहवीं के छात्र नहीं कर पाते थे, जबिक वह उनके पाठ्यक्रम में था; इन बच्चो ने वही ग्राफ ग्यारवीं- बारहवीं किये बिना खेत के साथ सिख लिया | ग्राफ का स्लोप नापना भी सिख लिया |

हमें व्यवस्था के अन्दर घुस कर ही परिवर्तन लाना है और उसको बदलना है।

रेखागणित, बीजगणित, रसायन शास्त्र यह सब चल ही रहा था कि अब सामाजिक विज्ञान भी आ गया | एक बच्चे ने एक दिन पूछ लिया सामूहिक बैठक में, अरे यह बताइए की दाम काहे को इतना बढ़ जाता है और कम हो जाता है | एक बार जो दाम तय हो जाये तो वही क्यों नहीं ठहरता | तो बातचीत शुरू हुयी की अचानक इस बाजार में बहुत सारी मूंगफल्ली आ जाये तो दाम बढेगा की घटेगा | तो पूर्ति और मांग इनके क्या रिश्ते होंगे, उसके ऊपर बातचीत हुयी | उससे एक सिद्धांत निकाला मांग और पूर्ति का, डिमांड और सप्लाई का |

तो फिर बच्चो ने पूछा की, इतनी मूंगफल्ली कहाँ से आती है। तो पता करो मूंगफल्ली कहाँ पर उगाई जाती है हिन्दुस्तान में। फिर भूगोल की किताब खोली गयी, नक्शा खोला गया। तो पता चला गुजरात में बहुत मूंगफल्ली उगती है। तो यह है गुजरात। कितना दूर है हमारे गाँव से।मालूम नहीं | तो नापो | हमारा यह छोटा सा गाँव होशंगाबाद जिले के एक सुदूर ब्लाक में है, तो यहाँ से गुजरात की दुरी कितनी होगी | तो यहाँ से बड़ोदा (जो गुजरात का एक शहर है) तक की दुरी नापो | पहले सीधी लाइन में नापो, बाद में रेलगाड़ी से जाने का रास्ता भी नाप लो | तो कैसे नापे | यहाँ पेज पे तो एक इंच की ही दुरी है | तो हमें कैसे मालूम पड़ेगा की बड़ोदा कितनी दूर है। तो भाई ऊपर क्या है नक़्शे में। अरे यह तो देखा ही नहीं हमने अब तक। ये तो पैमाना दिया हुआ है, वहाँ पर- ये तो स्केल है | भूगोल पढ़ने वाले काफी वरिष्ट विद्यार्थी भी नहीं जानते स्केल का उपयोग- वो जो स्केल है नक़्शे में उसका उपयोग कैसे करना है |

तो बच्चो ने स्केल देखा नक्शे में; हाँ स्केल तो है, उसका क्या करेंगे ? अब खुद ही ढून्ढ लिया उन्होंने – अकल इतनी तेज हो गयी थी | अगर स्केल इतना लम्बा है तो उसका मतलब है की इतनी दुरी इतनी किलोमीटर में हो जाती है | उन्होंने तुरंत स्केल निकला, अब तो स्केल का उपयोग करना, सीधी लाइन खींचना सब सिख गए थे | और धागे से भी नापना सिख गए थे; तो उन्होंने नापा और कहा बड़ोदा इतनी किलोमीटर दूर है | अरे ये तो बहुत दूर है, हम गाँव से यहाँ तक चलके आते है तो आधे घंटे में चलके आ जाते है | बड़ोदा जाने के लिए कितने दिन लग जायेंगे | मतलब पदयात्रा करे तो कितने दिन लगेंगे ? रेल यात्रा करेंगे तो कितना टाइम लगेगा ? रेल तो इटारसी से जाना पड़ेगा, फिर नक्शा ढूंडा | रेलवे टाईमटेबल देखना सिख लिया |

अब भूगोल की भी जानकारी मिल गयी | रास्ते में कौन-कौन सी निदयाँ आती हैं ? क्या सिर्फ मैदान से ही जा रहे है ? देखो नक्शे में एकाध निदयाँ बनी हुयी है | ये कौन-कौन सी निदयाँ है उनका नाम पता करो | उन निदयों को पार करना पड़ेगा, वहाँ पे पुल बना है की नहीं ? ये कैसे पता चलेगा ? नक्शे पे पुल दिखाया है की नहीं ? कभी दिखाया है और कभी नहीं दिखाया है | ट्रेन जाती है तो पुल तो होगा ! तो एक बड़ा नक्शा लाओ रेल्वे वालो का | तो नक्शे ढूंढे गए, पूल ढूंडा गया, कहाँ-कहाँ पे पूल होगा, रास्ते कहाँ होंगे, जाने का ये सारा तय हुआ | भूगोल का अध्ययन तो खूब बढ़िया चला, अर्थशास्त्र का भी चला, गणित भी साथ-साथ चला, और रसायन शास्त्र का भी साथ-साथ चला |

हमें व्यवस्था के अन्दर घुस कर ही परिवर्तन लाना है और उसको बदलना है।

जो सबसे बड़ी बात थी, जिसपे उनको सबसे बड़ा गर्व था कि ए. इ. ओ. साहब के दफ्तर में हम बिना पूछे जा सकते है | अब कोई नहीं रोक सकता हमें | और उन्होंने यह भी तय कर लिया की ए. इ. ओ. साहब को आता कुछ नहीं है | रुतबा तो बड़ा है उनका, पर जानते कुछ नहीं है | हम जब सवाल पूछते है जा कर, तो वे बोलते है कि खुद ही पढ़ लो ये वाली चीज इसमे है | और हर बार वैसे ही करते है | अब हम उनसे ज्यादा जानने लग गए है | अब जाते है ए. इ. ओ. साहब के पास और पूछते है, कि साहब आप बता सकते है नाइट्रोजन क्या होता है, हमको पता है |

अब हिम्मत आ गयी | एक राजनैतिक हिम्मत पैदा होने लगी है, कि अब किसी से भी बात कर सकते हैं; अब डर नहीं है | यह शिक्षा का ही हिस्सा है, कि गरीब बच्चो का डर दूर होने लगा | और अब आगे कहानी सुनाने की जरुरत नहीं है | ठीक यही प्रक्रिया गाय पालने में, दूध दोहने में, और बढाई के साथ काम करने में थी | बढाई के साथ काम करने में तो गजब की सिखाई है, गजब की | वह तो इतनी तेज होती है, कभी तिकोना कट रहा है, कभी तो चौकोना कट रहा है, कभी रंदा लग रहा है, उसमे कौनसी लकड़ी है, ये सब गजब की सिखाई है |

और बढाई तो बहुत जानता है। लकड़ी को देखते ही बोलता है की यह तो सागोन की है, यह तो शीशम की है, यह खराब आम की लकड़ी है, इससे काम नहीं चलेगा इस काम के लिए। कुर्सी में ये लकड़ी लगेगी, तखत में ये लकड़ी लगेगी। बढाई गजब का शिक्षक है, ये देख लिया हमने। उन बच्चो को लगता था, यह तो निरक्षर है, इसको क्या मालूम! तो वह निरक्षर बढाई कितना जनता है। वह जानता है की लकड़ी किस-किस जगह से आती है, कौन सी टाल पे मिलेगी, किस जंगल से निकलती है, उसको सब मालूम था। और उसको ये भी मालूम था लकड़ी देख के, कि कितनी वर्षों की उम्र होगी पेड़ की जहाँ से यह काटी गयी है। उसे रिंग गिननी आती थी।

वह था निरक्षर बढाई, मगर बहुत कुछ जानता था और बच्चो को सिखाने लगा | उसको मकान बनाना था | उसने पूछा बच्चो से, तुम मकान बनाना सीखोगे मेरे से ? बच्चो ने कहा हाँ ! फिर वह छत बनाने लगे लकड़ी की | ये सारा हम सबने सिखा | बच्चो ने तो सिखा ही, हमने तो उनसे ज्यादा सिख लिया |

हमारे बीच एक समूह की भावना बन गयी थी | आपस में बहस होती थी, झगड़े भी होते थे, और लडाईयां भी होती थी | इतना सब काम करते हुए ये कहकर की उसने तो कामचोरी की है; कई बार आपस में बातचीत बंद कर देते थे | ये रात को सो जाते है, सारी सिंचाई तो हम करते रहते है, वह तो कुछ नहीं करते | तो फिर मिलके तय करो कि, जो काम नहीं करेगा उसके साथ क्या करना होगा | तो फिर मिलकर आपस में तय करते थे की क्या करना होगा |

यहाँ तक तो गाड़ी बहुत सुन्दर चली और बहुत मजा आया | यह पांच साल-साढ़े पांच साल का प्रयोग था | बहुत कुछ बच्चो ने सिख लिया | एक दिन बच्चो ने सोचा की हम पड़ोस के गाँव मेले में जायेंगे | तो बच्चो ने अपना फाउंटेन पेन पाकिट में लगाया, स्केल भी रखी, नोटबुक कुर्ते के जेब में डाली और बड़े शान से मेला देखने गए | जब मेला देख रहे थे, तो गाँव का सामंत- ऊँची जात का एक सामंत जिसका पुरे गाँव पर कब्ज़ा था; उस सामंत का लड़का आया | उन बच्चो को देखा की जेब में फाउंटेन पेन और स्केल रख कर के घूम रहे हैं और मेले में मज़े कर रहे हैं । वह उनके पास गया और कहा की तुम्हारी इतनी हिम्मत की जेब में फाउंटेन पेन रख के चलोगे तुम ? और उनका फाउंटेन पेन छीन लिया, सब बच्चो का छीन लिया।

रोते हुए बच्चे वापस आ गए। हमें बोला की फाउंटेन पेन छीन ली हमारी। तुम क्या करते रहे ? हम क्या करते, इतना ताकतवर आदमी है वह। उसका तो शरीर भी बड़ा है और उसकी ताकत भी बहुत बड़ी है। हम क्या करते ? तब तो ठीक है, अगर ताकत के सामने झुक गए हो तो तुम्हारा फाउंटेन पेन छीना जाएगा, हर बार छीना जाएगा। पर छीना क्यों। फिर तय हुआ, छिना क्यों कि अब हम पढ़ लिख रहे है। हममें बोलने की क्षमता आ गयी है अब। औकात बढ़ रही है हम गरीब लोगों की। इससे सामंत घबरा रहा है। तो क्या करना होगा? फिर तय हुआ कि मिलकर सामंत के घर जाएंगे और बोलेंगे की अपने बेटे को बाहार भेजो, हम उससे अपनी फाउंटेन पेन वापस मागेंगे। और गए, लड़े और अपनी फाउंटेन पेन वापस ले के आ गये। और खूब ख़ुशी में नाच गाना किया की उनको फाउंटेन पेन वापस मिल गया। एक राजनितिक सत्ता की लड़ाई जीती। समीकरण बदलना सिखा।

गाना गाते थे, गाने लिखते थे। खुद गाने बनाते थे। बहुत कुछ सीख लिया उन्होंने। थोड़ी बहुत अंग्रेजी भी सीखने लगे। खूब मज़ा आने लगा। पांच-साढ़े पांच साल की मजेदार कहानी अभी तक लिखी नहीं गयी है कभी; कि काम से कैसे सिखा जाए और भाषा की इसमें क्या भूमिका हो। वह अंत में हिंदी भी बढिया लिखने लगे, बीना सिखाए हुए। क्यों की इतना पढ़ते थे किताबों को, इतना ज्यादा पढ़ते थे, की अपने आप उनको हिंदी भी आने लगी। और बुन्देलखंडी कब हिंदी में बदल गयी यह हमें याद नहीं। कहानी ख़त्म हो रही है। दिवास्वप्न ख़त्म होता है बड़े अजीब ढंग से, जो हमने कभी सोचा नहीं था। इन बच्चो में एक विकार आ गया। धीरे-धीरे देखा के विकार क्या आ गया? उनमें बहुत अहंकार पैदा हो गया, कि यह बाजू के स्कुल में जाने वाले सब बच्चो से तो हम ज़्यादा जानते हैं। जो हाई स्कुल में बच्चे पढ़ते हैं उनसे ज्यादा जानते हैं, किसानो से ज्यादा जानते हैं, अफसरों से ज्यादा जानते हैं, और यहाँ तक की अपने मा-बाप से भी ज्यादा जानते हैं। यह अहंकार पैदा हो गया। जानते नहीं थे अपने मा-बाप से ज्यादा। मगर यह अहंकार पैदा हो गया। बहुत कोशिश करी हमने नियंत्रण करने की उनको, थोड़ा समझाने की। मगर नहीं समझा पाए।

वे जानते तो बहुत थे, मगर इतनी ज़ल्दी एक छोटे से समूह में ज्ञान अहंकार की ओर ले जाता है, उसकी हमने कल्पना भी नहीं की थी, सोचा भी नहीं था। और धीरे-धीरे इस अहंकार ने वह रूप लिया, जो हम कभी नहीं चाहते थे, सोचा भी नहीं था; कि वह गांव वालों से कटके रहने लगे, दूर रहने लगे, की गांव वालों को क्या आता है, हम सब कुछ तो जान गए। उनके और गांव वालों के बीच में; और उनके और उनके परिवार के बीच में दूरी बढ़ने लगी।

एक राजनैतिक हिम्मत पैदा होने लगी है, कि अब किसी से भी बात कर सकते है; अब डर नहीं है | यह शिक्षा का ही हिस्सा है, कि गरीब बच्चो का डर दूर होने लगा।

हमारे यहाँ तो एक बड़ा संकट आ गया। अरे यह क्या हो गया। इसकी तो कभी गांधीजी ने बात नवहीं की थी। हमको पता नहीं था कि ऐसा हो जाएगा। अंत में उनके मा-बाप को बुलाया गया। मा-बाप ने कहा, हाँ ये हम लोगों से बहुत कम बात करते हैं, घर आते हैं, खाना खा के भाग जाते हैं, कि बहुत काम है वहाँ पे गाय का, बढ़ाई का, गाय पालने का और बहुत काम है; हमको इधर जाना है, उधर जाना है। तो हम लोगों से बड़ी कम बात होती है। फिर माँ बाप के साथ बैठ कर उन बच्चों की मीटिंगे हुई, कई मीटिंगे हुई। फिर बच्चो ने बहुत धीरे-धीरे समझा की यह हमारी गलतफैमी थी; मा-बाप से तो ज्यादा हम नहीं जान सकते। यह बात सही है। हम कुछ बाते जानते हैं जो मा-बाप नहीं जानते। मगर अंत में मा-बाप बहुत कुछ जानते हैं। हमें पता है। मा-बाप ने कहा अब बहुत हुआ यह बला प्रयोग, अब हमारे बच्चो को कहीं काम पे लगवा दीजिए। और ख़त्म कीजिए यह प्रयोग। तो उनको अलग जगह में काम पे लगाया गया।

यह विश्लेषण हमारे यहाँ एक लम्बे अरसे तक चलता रहा की यह सब हुआ कैसे। और क्यों हो गया। जो अच्छा हुआ वह देख लिया और उसका यह अंतिम हिस्सा भी देख लिया। इस दिवास्वप्न से हमने एक बहुत महत्वपूर्ण बात सीखी- कि जब आप ऐसे किसी क्रन्तिकारी शिक्षाशास्त्र का प्रयोग बाकी सारी व्यवस्थाओं से हट कर अलग से करते हैं, चाहे वह कितना ही अच्छा प्रयोग क्यों न हो, उसमे यह संभावना हमेशा रहती है की वह समाज की आम प्रक्रियाओं से हट कर होता है।

जहां पर बाकी सब सरकारी स्कूलों में बच्चे जाते थे पास के इलाके से, वहाँ के बच्चे तो ऐसा नहीं कर रहे हैं। वह तो ऐसे ही पढ़ते थे जैसे हर कोई पढ़ते थे। यहाँ पर तो कुछ अद्भूत काम हो रहा है, जिसमे बाकी बच्चे शामिल नहीं है। उन बच्चों की सिखने की गित और क्या सीखते हैं, उन सब में फर्क था इन बच्चों से। वहाँ तो बात करने की छूट नहीं थी, सवाल पूछने की छूट नहीं थी। वह अपने शिक्षक से कोई बहस नहीं कर सकते थे। यहाँ पर तो हमारे मास्टर लोग हमारे साथ सब काम करते हैं – खेती करते हैं, फावडा उठाते हैं।

तो समझ आया, परिवर्तन लाना है तो आप अगर आम सरकारी स्कुल व्यवस्था में कोई परिवर्तन नहीं ला रहे हैं, अलग हटके एक प्रयोग कर रहे हैं, उसमें कई प्रकार के अनापेक्षित, बिना सोचे हुए कई प्रकार के विकारों की आने की संभावना है। और वह एक व्यवस्था से हट कर काम करने के कारण से होगी। इसलिए हमें व्यवस्था के अन्दर घुस कर ही परिवर्तन लाना है और उसको बदलना है। यह हम लोगों ने निर्णय किया। यह गलत हो सकता है। यह १९७७ का निर्णय है। मगर उत्पादक काम का शिक्षाशास्त्र हम लोगों ने सिखा।

प्रोफेसर अनिल सद्गोपाल स्वतंत्र भारत के सबसे महत्वपूर्ण शिक्षाविदों में से एक हैं। हालाँकि उनकी डॉक्टरल शिक्षा कैलिफ़ोर्निया इंस्टिट्यूट ऑफ़ टेक्नोलॉजी से बायोकेमिस्ट्री और मॉलिक्यूलर बायोलॉजी के विषयों में है, देश में नयी तालीम और विज्ञान शिक्षा को लेकर हुए प्रयोगों और शिक्षा के अधिकार के आन्दोलन में उनके योगदान के लिए वह जाने जाते हैं। एक दशक से अधिक समय के लिए उन्होंने दिल्ली विश्वविद्यालय में शिक्षा के विषय में प्राध्यापक रूप में काम किया है। उनकी रचनाओं में 'संघर्ष और निर्माण' (१९९३) और 'शिक्षा में बदलाव का सवाल' (२०००) उल्लेखनीय हैं।

२०११ में प्रोफेसर अनिल सद्गोपाल ने अहमदाबाद स्थित
गुजरात विद्यापीठ महाविद्यालय में नई तालीम व्याख्यानमाला में
'नई तालीम का परिवर्तनकारी नजिरया : औपनिवेशवाद से लेकर
नवउदारवाद तक ज्ञान की लड़ाई' थीम पर अपने विचार रखे
थे। उन्होंने गाँधी जी की नई तालीम को नए सिरे से परिभाषित
करते हुए स्वयं तथा अपने साथियों द्वारा किए गए विस्तृत कार्य
अनुभव को इस व्याख्यान माला में प्रस्तुत किया। इन व्याख्यानों
को सुनना एक इतिहास जीने जैसा है। आम बोलचाल की हिन्दी
में दिए गए ये व्याख्यान हमको शिक्षा में हुए उन प्रयासों तथा
परिवर्तनों की झलक दिखाते हैं, जो अब हमारी न केवल विरासत
हैं, बिल्क जिनमें से नई राह निकलती दिखती है। यहाँ पर प्रस्तुत
लेख उसी श्रृंखला के दुसरे व्याख्यान 'उत्पादक काम, भाषा और
ज्ञान का शिक्षाशास्त्र' का संपादित संस्करण हैं।

Understanding Dewey

Education and Experience

Nomita Sikand

ohn Dewey (1859-1952), the American philosopher, psychologist, and educational reformer writes 'Experience and Education' two decades after founding the Laboratory School, at the University of Chicago. He presents a 'Philosophy of Educative Experience' that elaborates on the organic connection between education, and the quality of educative experience of the learner.

Dewey lays much emphasis on democratic ideals of inclusiveness, and the continuity of experience in spiraling the learner towards greater insights and knowledge.

'Experience and Education': A Summary of the Arguments

Chapter 1 juxtaposes 'Traditional vs Progressive Education'. Dewey begins by laying the foundation of his argument by contrasting traditional and progressive philosophies of education. He elaborates that one cannot dismiss, the important roles of 'past experiences', 'organization of content', 'adult supervision' in the education of still developing minds. He cautions educationists against extremes of education philosophy, wherein 'traditionalists' follow the strict and the rigid, and 'progressives' consider the role of the above three factors as being too restrictive. He urges educationists to engage in "a positive and constructive development of purposes, methods, and subject-matter

on the foundation of a theory of (educative) experience" (p.7) for its education potential.

Chapter 2 builds a rationale for 'The Need of a Theory of Experience'. Dewey calls for an understanding of the quality of personal experience, and its potential to either 'miseducate' or create "experiential continuum". The onus lies on teachers to select those experiences that create adequate impact, and bring to life future experiences by association with prior educative experiences. He points out that "to discover what is really simple and to act upon the discovery is an exceedingly difficult task." (p.11) It is easy to slip into artificial, complex, and rigid modes of mature minds, and impose knowledge on immature young learners.

In Chapter 3, 'Criteria of Experience', Dewey speaks of democratic ideals as being more humane and inclusive. According to him, these should be reflected in the process of designing educational experiences. Without careful thought, the principle of continuity of experience can impede development and put the learner on a low development path.

A mature educator, alternatively, can plan for experiences that instill curiosity, initiative, and purpose — every experience being a positive learning force. Thus, the task of the educator is to sympathetically evaluate and guide the moving force of experience. Here, Dewey elaborates that experience is not only that which resides within the individual but is also the 'interaction' with the external world that strongly influences the young learner. This understanding of the duality of continuity and interaction in experience is not only of educational relevance but is a

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resource. It gives valuable direction on how to design and guide relevant experiences without imposition.

Chapter 4 discusses 'Social Control'. Dewey states that there is always some form of control within all communities. But the rules and principles formed are supposed to be for the greater good of all the members of the community. Thus, we understand that non-coercive social control is a possibility. Educative experiences can be flexible to accommodate individuality of experience. Yet these can move the group collectively forward towards more powerful learning experiences as well. It is also the role of the most mature member of a school community - the educator - to be responsible for quality and conduct of interactions and communications. In this process, attitudes and habits may be formed that promote future learning, through communications within and beyond one's community.

Chapter 5 throws light on 'The Nature of Freedom'. Critical of the rigid, straightjacketing methods used in traditional schools, Dewey says external limitations restrict the internal freedoms - of thought, desire, and purpose. Internal and external freedoms are interconnected. Passivity and receptivity are detrimental to intellectual activity. A freedom that is desirable then is freedom which has the "power to frame purposes, to judge wisely, to evaluate desires ... to carry chosen ends into operation." (p. 27) Stopping to think and reflect, and gradually developing self-control is the pragmatic face of freedom, for the individual, and is an ideal aim of education.

In Chapter 6 'The Meaning of Purpose' is discussed. In this chapter, Dewey extends the concept of freedom - for an individual or an organization - to the process of formation of purposes and the means to execute these. For him this exercise in freedom is critical to progressive education. In contrast, a slave is one who either fulfills purposes

designed by another or is dictated by one's own blind desires. Mere action on impulse cannot be the purpose of education. Powerful purposes for education are created involving the learner in the planning of educative experiences.

'Experience and Education' is essential reading for an aspiring educator — not only for its unique conceptualization of the continuum of educative experiences but also for illustrating these ideas for the reader to make it explicit for practice.

Chapter 7 delves into the 'Progressive Organization of Subject Matter'. Dewey states that the necessity and challenge for the educator lies in creating an experience continuum. Ability to carefully present new problems is necessary. So, is the capacity to extend and elaborate understanding by connecting subsequent learning experiences. Using a scientific process to bridge an understanding of past knowledge helps learners engage productively with his future and thrive. It must also lead to greater sophistication in articulation and analysis, thus connecting learning in a spiral fashion.

In this way, learning becomes seamless, allowing the learner to inch forward towards discovering the knowledge that the mature educator knows. Further, Dewey states that education must engage with both scientific and social applications of science. This leads to an understanding of the production and distribution of services and products and the social and economic barriers that humans maintain. Thus, learning experiences must necessarily use 'critical pedagogy' for an understanding of the self within society.

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In Chapter 8, titled 'Experience – The Means and Goal of Education', Dewey concludes that with an ever-present dissatisfaction of the educational situation, seeing education as rooted in the personal experiences of the learner is useful.

He admits that he has not attempted an exhaustive philosophy of its principles. Rather, he has tried to expand on necessary, not sufficient conditions, that can allow educators to embark on an idea that may lead to something "worthy of the name education" (p. 40) He steers clear of adopting an 'ism' in naming his propositions and hopes for all to engage in their own inquiry to understand what education is — without the need for sloganeering.

Understanding Contemporary India with 'Experience and Education'

'Experience and Education', steeped in the idea of understanding learner experiences and its connectedness to furthering learning, has transformative potential. It allows for connecting the learners from where they are (in their experience) to where they need to be (in a structured curriculum). If an educator can recognize that learners have unique prior learning experiences, then she may become adaptable and nimble in finding solutions for learning. Here we see how progressive thought within a traditional system merges seamlessly to create a meaningful learning cycle for students. On the other hand, many 'miseducative' experiences create school dropouts.

Dewey lays much emphasis on democratic ideals of inclusiveness, and the continuity of experience in spiraling the learner towards greater insights and knowledge. The problem that arises in the current scenario of school closures during the pandemic, is of undemocratic practice. Most children have no access to learning - in denial of learning continuity – while students of private schools who can 'afford' it, have access to this continuity.

What is the effect of this exclusionary practice, leading to learning discontinuities? How do young learners experience such an exclusionary society? How do these exclusionary policies impact learning and the country as a whole? These are serious concerns for deliberation for educators and policy makers today. While formal learning has discontinued, social learning experiences continue. For many learners it certainly has been a 'miseducative' one.

It is in answer to these deliberations that community-based interventions by teachers and organizations have provided for continuity of learning experiences, to the best of their abilities, across the country. These have tried to restore in a few young learning minds trust in the society they belong to.

Dewey's simplistic assumption of a flat community structure does not hold good in the Indian context, where hierarchy is the societal norm.

Reassessing Dewey's Ideas as a Guide to Practice

Dewey's simplistic assumption of a flat community structure does not hold good in the Indian context, where hierarchy is the societal norm. Maintenance of power structures is how caste and class operate; the former perhaps being more rigid. Similar is the situation in bureaucratic organizations of which the traditional and public schools are perfect examples.

However, Dewey's idea of a democratic form of social control in classrooms, and even at the school level, has intrinsic value. These are meant to be centers of societal transformation. Herein lies the critical role of the mature educator who creates inclusive learning experiences of social control towards the good of all in the classroom.

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Dewey warns that this is not an easy task and slipping into traditional rigid ways are easier. As the founder of the Laboratory School, he saw many of his original ideas transformed into a more structured practice. The idea of an open, problem-based curriculum is potentially transformative.

'Experience and Education', steeped in the idea of understanding learner experiences and its connectedness to furthering learning, has transformative potential.

But pragmatically it requires highly qualified, experienced teachers guided by experts. These teachers then should be able to steer through this experimental research for designing an ever-changing, socially inclusive curriculum that propels learners forward towards a truly educative experience.

In Conclusion

'Experience and Education' is essential reading for an aspiring educator — not only for its unique conceptualization of the continuum of educative experiences but also for illustrating these ideas for the reader to make it explicit for practice. In organizational and pedagogic terms, the mature educator must be part of the community of learners, autonomous, and possess self-control. "Through a process of critical, social intelligence" (p. 31) an educator actively shapes experiences rooted in the learners' past experiences such that learning is extended as an experience continuum into the future.

The book has important insights for teacher educators and capacity building organizations, and for teacher education policy as well. Translated into practice in the teacher education space, Dewey's

ideas could help those aspiring to become educators of mature adults gain insights into the philosophy of educative experience. By critically engaging with these ideas and insights, educators can develop into observant and responsive members of learning communities. They can, thus, train themselves to be deliberative in critically reconstructing and expanding the educative experiences for their learners.

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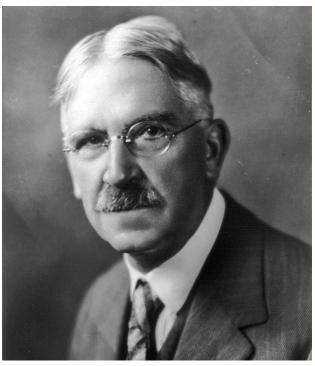
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John Dewey (1859 - 1952)

Introducing 'Nai Taleem'

A Film on Anand Niketan

Adwait Deshpande

Inoba Bhave effectively summarized
Nai Taleem as "Education is life itself."
Unlike the contemporary practice of
considering education as 'preparation' for life,
Nai Taleem firmly states that these two can
never be separated. Education is a life-long
process and learning happens through life
and for life.

How does this look in practice? Imagine a group of students observing the growth of the tomato plants they have planted. They meticulously note down the growth update for week #4: number of leaves, height and circumference of the plant; whether buds and flowers have appeared; insects and butterflies sitting on the flowers; aphids that may have infected the plants; etc. As they discuss their observations, the teacher shares names of insects and butterflies in the local language and in the scientific language. Possible ways of removing aphids are discussed and tried out. The children will determine if the method was useful during the next observation. If not, other methods may be tried as well.

As the children lovingly (and scientifically) take care of these plants, they learn about the parts of plants, types of weeds etc. They experience pollination, the effect of untimely rains as well as extended dry periods.

Towards the end of the season, they harvest the produce, measure it, sell it, evaluate theirs earnings, and plan the next season.

While the plants grow, the children sing songs of the season, learn to use various tools, connect it with the collective experiences of farmers of the nation, listen to experienced farmers, reflect and write their experiences and read relevant stories and articles.

Naturally, this process cannot be reduced to 'activity-based curriculum'. It is a flow that is enriched by variation in nature, by the interaction of students, teachers, community members and experts, by reflections and discussions. It is truly the development of the head, the hand and the heart.

Education is a life-long process and learning happens through life and for life.

In Nai Taleem, the primary intention isn't only to learn the concepts listed in a predesigned curriculum effectively. It is to engage with a life-supporting craft and through it, learn about the interconnections of various concepts, ideas, and practices, and develop a holistic understanding about life and society. It organically lays down the canvas for learning by experiencing. Through this process, it encourages the learner to assimilate these experiences into a reliable understanding of self and the world. In this way, Nai Taleem attempts to nurture a lifelong learner.

To see how this interplay between life experiences and learning and education could manifest in a formal school setting, watch Nai Talim - A film on Anand Niketan (School) or visit the school at Sewagram.

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Learning from Life

A Maggu

What are the lessons you remember from school? Was it the time when your teacher took you to the school garden to explain the anatomy of a plant? Was it the time when your teacher asked you and your classmates to enact a play from the textbook? Or, was it the time when your teacher took you on a nature walk and asked you to document various species?

t is not surprising that most adults remember the school lessons that discussed links between their experiences and observations and discussed parallels with the textbook lessons. Over the years, experiential learning approaches that contextualize pedagogy, curriculum, and evaluation to the lived realities of children have gained traction. It acts as a direct contrarian to the one-size-fits-all approach.

In India, the experiences of individuals vary on the basis of the geography, history, social practices, ecology and culture of the region they inhabit. For instance, the experiences of a child with a disability in Mumbai would differ from those of a child living in a remote village in the Andaman and Nicobar Islands. Efforts to tailor the learning processes that incorporate the myriad experiences of children have been launched by many organizations.

Learning from Nature: Life Meets the Lens

Vikram Singh, a self-trained naturalist hailing from Palampur, Himachal Pradesh, in 2017, started a project called 'Life Meets the Lens'. He started the initiative with the belief that people must be encouraged to explore the natural world and appreciate its wondrous biodiversity. When he was merely eight years old, he began spending time in nearby forests to collect dead insects, seeds, stones,

feathers, mushrooms, and skulls and bones of dead animals. He continues to diligently collect the specimens and presently has a collection of around 7,000 specimens. These are housed in a 'Nature Museum' he has set up in his village.

Vikram says, "Those early years of uninterrupted time spent in exploring varied species in the forests helped me develop a child-like curiosity about the natural world. I had a lot many questions that the lessons in my school failed to address." He went on to study botany in college. It took him a few years to set off on the journey again and he chose to actively work on educating students and the public to explore the natural world.

He had a short stint with a non-profit in his hometown as a biology teacher for middle and high school students and used experiential methods to teach his students about the natural world. In 2017, he set his mind upon starting 'Life Meets the Lens'. He began conducting workshops and residential camps for students. Singh focused on taking participants on field trips and encouraged them to document species. These visits were followed by engaging discussions in which the students shared their findings and he helped them understand the natural ecosystems better. He also conducted



Camera As a Tool to Document Biodiversity

ife Meets the Lens

courses for teachers on biodiversity issues, centered on experiential learning.

He is cognizant that the Indian education system falls short of encouraging young minds to become aware of the thousands of life forms that share the country with us humans. He says, "Our textbooks do explain the reproductive cycle of a butterfly from an egg to an adult. Understanding it in a textbook and observing it happen in the natural world make vast differences to the learnings of individuals. Through our workshops, we create a friendly learning environment for students and adults where they can study, experiment, and have meaningful conversations about the natural ecosystems, to which we all are so intricately connected." He shares that the goal of the



Participants Observing Museum Specimens During a Workshop

workshops remains to rekindle the child-like curiosity amongst individuals about the natural world. He adds, "What we aim is that by the end of workshops, individuals start pondering over things such as differences in nests of various birds or seasons in which a certain species migrate, and try searching for answers to these questions."

Due to the pandemic, the activities under the project have been paused. Since Singh's approach focuses heavily on experiential learning, the inability to take individuals on field trips has discouraged him from conducting workshops. He is hopeful that as soon as the situation normalizes for the better, he will happily resume his work.

Place-based Learning: Dakshin Foundation

Dakshin Foundation works on advocating for conservation and natural resource management, while promoting and supporting sustainable livelihoods, social development, and environmental justice. They aim to build community capacity for conservation and enhance community engagement in environmental decisionmaking in coastal, marine and mountain ecosystems in India.

Karishma Modi, an experiential educator with Dakshin Foundation working in the Andaman and Nicobar Islands says, "A teacher who truly believes in experiential learning should encourage the students to learn from one's experiences and position the right questions to students."

Students' questions also play a part in learning from experiences. Karishma adds, "In the classrooms, teachers who say that no question is stupid may start laughing or say do not waste my time at the first instance of a question from students that may appear to be silly. It could be highly demotivating for a child."

The Andaman and Nicobar Islands have been scantly covered in the CBSE prescribed school textbooks. Understandably, local children find it difficult to understand concepts that are not contextualized to their experiences and surroundings.

Karishma works on the Islands of Wisdom project, under Dakshin Foundation's Environmental Education program in the Andaman and Nicobar Islands. The Islands of Wisdom project recognizes that reflections on experiences play a significant role in a child's learning process. It has adopted a place-based approach in designing TLM for children in elementary and middle schools.

Dakshin has adopted a three-pronged approach in scaling the program. Firstly, the team works directly with children, emphasising their experiences to teach

Ground Zero

concepts. For instance, when the children were required to understand plastic pollution, the Dakshin team presented a set of modules through which students could assess waste in their immediate neighbourhood.

Secondly, using communities' existing experience to help children learn, the facilitators work with educated members of the rural fishing community in and around Wandoor village. The members are capacitated with place-based, multi-grade, multi-level learning methods.

Thirdly, Dakshin wishes to scale up the program in the public school network in the Andaman and Nicobar Islands. By reaching out to the state institutions, it is encouraging the development of an education system that uses the lived experiences of communities of the Islands as a learning resource.

The learning lab that the organization runs has children from Anganwadi to eighth grades. Karishma shares, "We ensure that each child receives good attention. Since the children come from across grades with varying learning levels, we adopt engaging methods for teaching them Bengali, English, Mathematics, Environmental Sciences, and for enhancing reading proficiency. We follow a round-robin approach in our discussions."

The innovative learning methods used in the learning lab were initially met with reluctance from the parents in the community. Karishma admits that it was not an easy task to convince the parents. She says, "The parents believe that the private classes conducted by tutors are better than Dakshin's after-school sessions. Initially, we did not focus on the prescribed curriculum but then we quickly revised our approach. When the examinations get close, we help children with foundational concepts. We are also accommodating requests made by certain children; if they say they have a tuition class and wish to leave 15 minutes early then we allow them. We need to meet everyone halfway. Our rigidity could

have resulted in that child dropping off from the sessions. For us, each child is important."

She adds, "Our efforts are paying off! In January 2020, we received the invitation to participate as the local NGO representative in the school management committee (SMC) of Government Middle School Wandoor. It helped us gain credibility in the eyes of the community. After the first wave of the pandemic eased, our facilitators Aplonia and Moumita used to visit the children in the community and take sessions. Since these sessions were conducted in the village, the parents would get to observe the sessions without having to come to our classroom. Their confidence in our place-based methods is organically growing."

The classes in the learning lab have been hit hard due to the pandemic. Dakshin Foundation has joined the digital revolution by sharing materials online. After the effects of the pandemic's first wave receded, the facilitators began taking sessions with smaller groups.

The digital gap for the children of this region is stark. Children enrolled in the sessions come from low-income families and they barely have access to smartphones. The efforts of moving to the digital forum are marred with problems of expensive internet data and poor cellphone network coverage in the Islands. Karishma is confident that whatever be the situation, the team would attempt to produce innovative solutions.



School Teachers Taking a Walk to Observe Mangroves

Dakshin Foundation

Ground Zero

Dakshin Foundation's other program that holds place-based learning central is the Treasured Islands program. A 2003 Supreme Court ruling recommended the infusion of environmental education in mainstream education programs. Dakshin Foundation is in conversation with the Directorate of Education in the Andaman and Nicobar Islands to make 'Treasured Islands' the environmental education resource across all public schools in the islands.

In 1996, Andaman Nicobar Environment Team (ANET) and Kalpavriksh came together to design Treasured Islands, a place-based and context-specific environmental education teacher training manual. With the ruling of the Court, Dakshin Foundation, along with ANET and a host of other contributors updated the existing book, and aligned it with the CBSE curriculum.

Dakshin Foundation is creating supplementary audio and visual materials that could be used with the textbook and will reinforce the focus on experiential learning. This book is expected to serve as an environmental education textbook for nearly 150 middle schools in the Andaman and Nicobar Islands.



Students Creating a Village Map

Learning to Live Independent Lives: National Federation Of The Blind Maharashtra's Jagriti School for Blind Girls

National Federation of The Blind, Maharashtra (NFBM) was established in the year 1977 to improve the quality of life of visually impaired persons. NFBM's flagship initiative is Jagriti School for Blind Girls located in Alandi Devachi, Pune district which was set up in 1989.

Sakina Bedi from NFBM shares, "We set up the Jagriti school to support only visually impaired girls. Firstly, these girls are visually impaired and come from economically weaker families. Secondly, the covert and overt patriarchal norms in society put the girls again at a disadvantage. This is a double whammy for the girls."

Currently, there are 110 blind girls enrolled in the school and most of them hail from rural areas. It also provides free education, lodging, and boarding facilities to its students. It also supports the girls with learning skills in Information Technology, vocational training, crafts, home science, sports training, and communication skills.

Explaining how experiential learning pedagogy forms a strong part of the lessons conducted for visually impaired girls at Jagriti school, Sakina shares, "A child who is visually impaired has to struggle a lot to perform daily functional activities. We cannot just stick to only the prescribed curriculum. We focus on capacitating the girls in a way so that they can lead independent lives."

The school provides education to visually impaired girls from grades one to ten. In 2015, the school premises were refurbished with state-of-the-art facilities and complete tactile and Braille infrastructure. The school has set up subject-specific labs. The educators follow an engaging pedagogy in the labs. All the grades do not have any classrooms of their own but physically move from say, a science lab to a geography lab.

The pedagogy emphasizes heavily on developing environmental awareness amongst the girls. Each child from early on is encouraged to interpret information about their environment through hearing,

Dakshin Foundation

Ground Zero

touching, and smelling. For instance, if a child is being taught about an animal, say, a dog, then the educators use a model of the animal so that the students can understand its physical attributes and they also play the sounds made by the animal. This experiential pedagogy helps the girls gain useful knowledge about any subject matter.

Sakina says, "We cannot follow the conventional approach of merely telling a child about the concept. If the girls are to be explained about waves, then they are taken outdoors to the beach wherein they are made to gain awareness of the environment – the sound of the waves, the smell of the sea, etc. One must be creative in explaining these things. For math, we use mathematical slates that cater to the needs of blind children."

The school conducts a special course focusing on orientation and mobility for girls across all grades. In sessions on mobility, initially, they are taught to independently move around the two-acre campus. Later, they are taken outside the campus and made comfortable to navigate public spaces. Similarly, the girls are oriented to granular things such as the smell of lemon, different cloth materials such as cotton and nylon, varioud kinds of pulses, etc. Sakina adds,

"These are all the things that people with sight learn seamlessly but our children need individual attention to understand these things. These sessions help the girls become confident about their environment. Due to the pandemic since last year, our residential facility has remained closed. We have presently moved to leveraging digital applications such as Zoom, Google meeting, WhatsApp, etc. and the school is trying its best to continue with life skill training sessions online by involving the parents and siblings of the visually impaired."

In Conclusion

Experiential learning has enabled us to extend classrooms' boundaries to include experiences and observations of the learners and educators. It reinforces the philosophy, "You live, you learn." The pandemic has posed challenges to experiential learning. But organizations across the country remain committed to innovating.

You can reach out to the organizations featured in this story at: Life Meets the Lens - lifemeetsthelens@gmail.com, Dakshin Foundation - dakshinfoundation.india@gmail.com, and National Federation Of The Blind Maharashtra's Jagriti school for Blind Girls - sakinaiam@gmail.com



Girls Enjoying a Banyan Tree's Shade







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Cover Photo: Students Observing Museum Specimens During a Workshop

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