

आ विद्या या विमुक्तये



Education is that which liberates...

Redefine learning to Reinvent education...
Reinvent education to connect with work...
Connect with work to transform communities...



Learning Redefined

Learning is an interconnected process. It is not a linear causal process. It is multi-dimensional –there is a learner, the subject, the context, the purpose, etc. For Disha India, learning is...

LEARNING IS REAL

Students work on real life issues of their local communities. Experiences from the local context of the child serve as a source of teaching and learning. It helps children understand their community better and make learning real, authentic and exciting for them.

LEARNING IS ACTIVE

When students work on real-life issues in their community, it not only helps them understand their community and its challenges better but also empowers them to take responsibility for it. They experience and learn how to make a difference in their community. This is what makes them active citizens.

LEARNING IS AUTHENTIC

Students working in/for the community have authentic purpose and audience for their learning. They work on real issues. They can see how their work will make a difference in the community. They work towards it. It engages them and makes them responsible for their learning and the outcome.

LEARNING IS CHALLENGING

Real life is complex. It does not work linearly. It is interconnected and there are loops within loops. It is dynamic. Children experience true challenge when they work on real-life problems. It engages them at the cognitive, emotional and physical levels.

LEARNING IS DOING

Children work with their hands. They experiment with new ideas. Children work with artisans on real problems and in the process they experience craftsmanship, self-reliance and conservation. They create with hands and experience possibilities and abundance in their community and self.

LEARNING IS IMMERSION

Experience is engaging. In the process of learning from experience children get completely immersed in it. They flow with it. This helps children in figuring out the world around in a holistic and integrated manner. The understanding developed is much more than just cognitive. It transforms the complete human being.

LEARNING IS CONNECTING

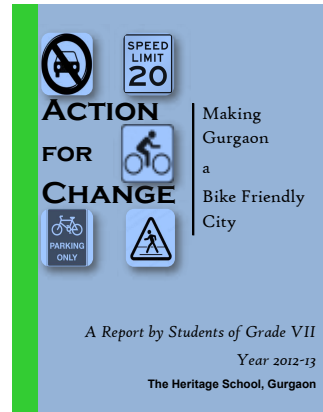
While learning children see connections. They are able to connect the present experiences with their previous knowledge. They make new connections. They look for leverage. Leverage for growth and change lies in connections.

LEARNING IS COLLABORATIVE

Children work together as a crew on real-life issues and they take shared responsibility for the outcome. Working in crews enhances their capacity to learn and create. They learn how to appreciate and leverage diversity.

LEARNING IS PUBLIC

Children share their learning with community members. This not only validates the usefulness of their knowledge but also helps the community members to understand the teaching and learning process of the school. This engages the community in the school and bridges the gap between school and society. It prepares children for real life.



Expeditions prepare children for life through life.



ENGAGED CITIZENS, TAKING RESPONSIBILITY

To explore the possibility of making Gurgaon a bike friendly city, grade VI and VII students of The Heritage School, Gurgaon undertook a Bicycle Expedition. Through the expedition students explored what it takes for a city to be bike friendly and whether their city is bike friendly or not. They conducted surveys and collected data to understand the current reality of their city. The expedition culminated in the form of a bicycle event, through which they built awareness about effective and safe transport in Gurgaon. Children presented their report on how to make Gurgaon bike friendly to the city commissioner, who in turn promised to start work on constructing the first bike path in Gurgaon.



The word expedition is derived from the Latin verb 'expedire', which means "to free something". In an expedition, we leave behind old habits and thinking and break out for the new.



Expedition as pedagogy for learning and development

Expeditions comprise of engaging experiences that challenge the learner cognitively, physically and emotionally, leading to new awareness, sensitivity and understanding in learners. In an expedition, learners set out to explore the unknown as a crew and in the journey they rediscover and re-connect with the self and the world around. The important aspect of the expedition is that it has the elements of curiosity and creative anxiety at every step. Therefore, it helps the learner experience and understand how he/she navigates the unknown challenge and develops his/her capacity further. How one navigates the unknown is one of the important life skills.

Kurt Hahn, the co-founder of Outward Bound, employed challenge, adventure and service not as an end in itself, but as a method of inculcating perseverance, skill, teamwork, leadership, compassion and taking responsibility for common good in the students of Gordonstoun, a school in Scotland that he founded in the 1930s. Through challenging expeditions, he developed among students a sense of moral commitment to the community and empowered them to take personal responsibility for physical fitness, craftsmanship and self-reliance. Inspired and guided by Outward Bound (www.outwardbound.net) principles and pedagogy, the expedition has the following elements and strands as part of its design:

1. Skill Building:

During the initial phase of the expedition, we focus on building skills, which children will use during the final challenge. The idea is to prepare the crew for the final challenge of the expedition.

2. Working in Crews:

During expedition we explore and navigate in small crews. The idea is to help children learn how to build on each other's strengths and create a synergy in the group. They need to experience the power of diversity and

inclusivity –and how it dramatically increases the richness of ideas, ability to solve problems and capacity to act in crew. As the expedition unfolds, crews will be expected to take more responsibility for the navigation and decision-making. This is important, as it will ensure that the skills learnt before the final challenge become tools for success during the expedition.

3. Final Challenge:

Expedition will include at least one big challenge like doing a social campaign, climbing a peak, earning your own meal, making a trail, working with a community on a specific issue, etc. These challenges push crew-members to find strengths they did not know they had. During the final challenge, the leadership is real and the success is theirs to keep.

4. Reflections and Sharing:

Solitude, reflection and silence replenish our energies and open our minds. It is during the reflection that learners make connections between what they experienced during the expedition and the previous knowledge. It is time for constructing new understanding and knowledge, and most importantly, to re-invent Self.

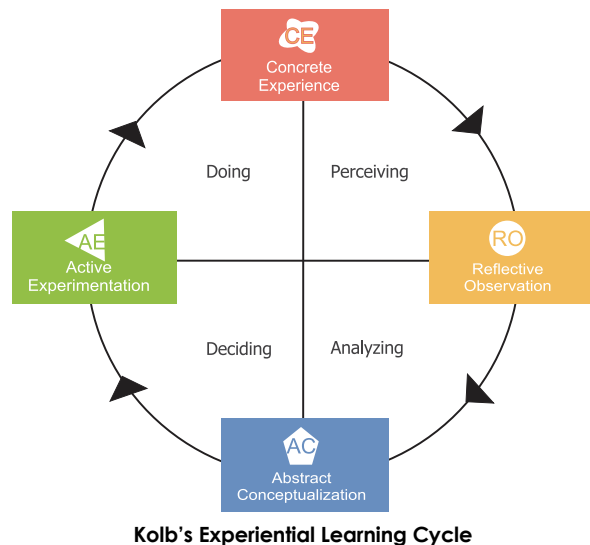
5. Service:

During service, learners are encouraged to work with communities on real life issues, which gives them an opportunity to practice their new understanding built during the expedition. It also helps them learn how to contribute meaningfully towards larger community causes and experience the joy of working selflessly. Children also get a first hand experience to empathize and connect with issues of change, equality, justice and denial. The important aspect of service is to experience one's true and abundant self.

Disha India's work is to design engaging and challenging curriculum and pedagogy that use real-life experiences, preferably from the local context of the child, as a medium of teaching and learning in schools. Principles that guide and inform our work of curriculum design, learning pedagogy, culture building and teacher development are:

1. EXPERIENCE AS THE SOURCE OF LEARNING

Learning is a process where knowledge is derived from and continuously modified by the experiences that a learner goes through. To learn is not a special province of a single specialized realm of human functioning such as cognition or perception. It involves the integrated functioning of the total being i.e. thinking, feeling, perceiving and doing. For effective learning to happen one needs four different kinds of abilities- concrete experience (CE), reflective observation (RO), abstract conceptualization (AC) and active experimentation (AE). This means, one must be able to engage oneself fully, openly and without bias in the new experiences (CE). He/she should be able to reflect



upon and observe his/her experiences from different perspectives (RO). He/she must be able to construct conceptual understanding that integrates his/her observations into logically sound theories (AC) and he/she must be able to use these theories to make decisions and solve real life problems (AE).

Understanding and re-defining the learning process:

- Learning is a continuous process grounded in the personal experiences of the learner. It involves transaction/interaction between the person and the environment and both get essentially changed during the process of learning.
- The process of learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world i.e. the conflict between concrete experience and abstraction and the conflict between observation and action. Learning requires abilities that are polar opposites. When we use both the concrete and abstract modes to experience our experiences and when we both reflect and act on that experience, we expand our capacity to learn.
- We all have our own preferred learning mode and given the opportunity and space we would prefer to learn through it. But for effective learning one needs to go through the complete learning cycle i.e. all the four learning modes -experiencing, reflecting, analyzing and doing. The goal of school education is to develop all four learning abilities and the learning flexibility to move across the learning cycle as the situation demands.
- Children have different learning styles and differential learning pace. They have different ways of solving problems. It is important that we acknowledge and respect this diversity in children and thereby, provide them the space in our curriculum and pedagogy to remain and learn differently.

e) Building knowledge is a transformative process, being continuously created and recreated, not an independent entity to be acquired or transmitted. Therefore, learning is the process where knowledge is created through the transformation of experiences. The purpose of education is to help children understand the process of knowledge creation i.e. learning how to learn, which will empower them to be self-learners for life.

f) Learning is a holistic process of adaptation to the world. The goal of education is to not only help children in understanding the process of adaptation but also to empower them to bring about the desired change and create the new world. True empowerment comes with the mastery of personal learning process i.e. learning how to learn.

2. LEARNING IN THE LOCAL CONTEXT

One of the biggest challenges in education is how to keep the 'curiosity' alive in children. There is a lack of meaning and relevance that children experience in the present school education system. It is driven by the textbook and is extremely classroom focused.

How can we engage children in the education process? How can we get them excited about learning? What will make them look forward to going to school everyday?

Gandhiji strongly advocated that the purpose of education is to prepare children for life through life and for that, teaching and learning needs to be connected to their life. Connecting teaching and learning to the local context of children provides the much needed relevance and meaning to the education process. It not only helps children in developing a better understanding of their environment but it also makes the learning process real and active for them. With better understanding of the local context, children find themselves better equipped to take responsibility for it and their action.

For effective and responsible action, children need to develop a systemic understanding of their local context and environment. It is developed when children are meaningfully engaged with their community and environment for a period long enough to understand it i.e. how it works, its challenges, seeing patterns of change, inter-connectedness, underlying structures and beliefs, etc. It takes time to build this understanding. Therefore, we need to start engaging children in the community very early in life by using real-life community issues as a context and the pedagogic medium for teaching and learning in school. Capacity to think systemically, developed during school through teaching and learning in the real context, helps children map, understand and transform more complex systems later in their lives.

The idea is also to bridge the gap between school and society, which is huge in the present system of education. Real wisdom and insights reside in the community and that can only be tapped by working with/in the community on real issues. We cannot get the community and its wisdom to school because it is vast, dynamic and subtle - the better and effective way is to design teaching and learning processes in the community.

3. PROACTIVE CITIZENSHIP

The bane of 21st century society is that we are too busy in establishing our families and self. We find it difficult to see beyond ourselves. We are too focused on immediate results and are driven by them. We are not engaged in the community. We lack understanding of community issues and therefore, find it difficult to see how 'I' as an individual can make a difference.

To be proactive means that we choose to act and create with responsibility towards the larger common cause. And for this we need to be engaged in our community and its challenges. We need to take responsibility for what is happening around us.

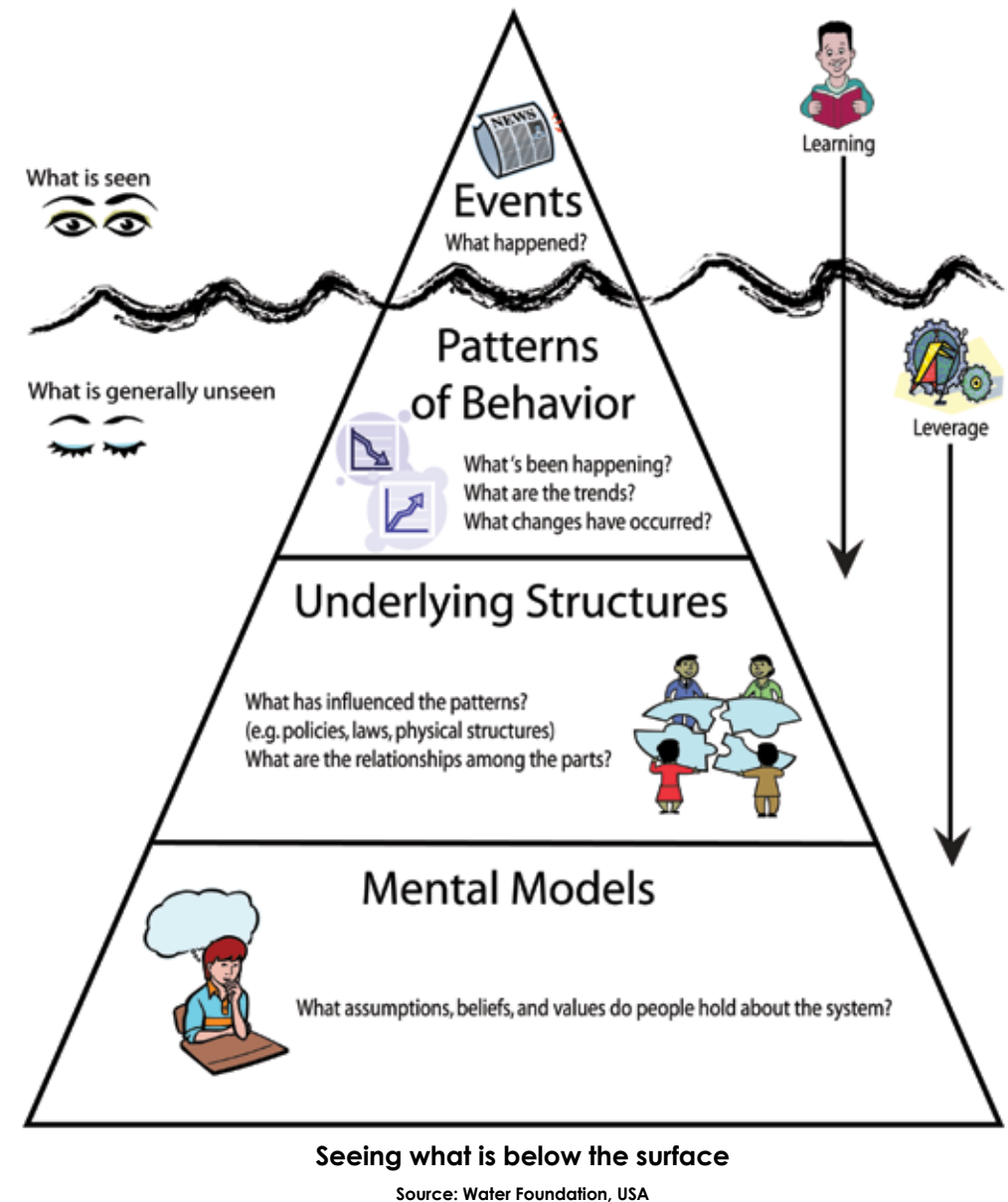
Proactive citizenship is about actively engaging ourselves in the civic issues of our locality and taking responsibility for them. This is one of the important goals of education. For this, we need to prepare children from very early in their lives. We need to take civic and other important issues from the community as a learning context/pedagogic medium and learn how to build systemic understanding of them, how to find leverage for change, how to act and make a difference. Children having gone through such learning experiences during school education are better prepared for life. They develop skills and process of understanding complex community challenges and how to act for change. Their action quotient is high.

4. LEVERAGE FOR CHANGE LIES IN SYSTEMIC THINKING

The ability to act depends on our ability to think and our ability to think depends on our ability to see. Therefore, what we see is important. Developing our ability to see things systemically empowers us to act effectively and responsibly.

We generally tend to react to events. If we can see the pattern of events and how they change over time then we can try to adapt to the situation. If we can see the underlying structure i.e. inter-relationships among parts of the system and how the parts affect each other, this enables us to re-structure parts and their relationships, leading to formation of new patterns and events. The ability to see and understand the underlying assumptions and beliefs behind the structure enable us to rework on them, which leads to the generation of new structure and therefore, change in pattern of events and events themselves. The more systemically and holistically we are able to see things, better the leverage we get for change.

Systemic thinking is a discipline for seeing relationships between parts, for seeing patterns rather than static snapshots and events. It is about seeing how one's thinking affects the situation and the



outcome. Actually, it is about seeing our own connections to what is happening in the real world and finding the leverage for change and growth.



5. SERVICE LEARNING

Service is about working for the highest good of all without attaching any personal desires to it. It is about demonstrating social and environmental responsibility as a community member. It not only helps us in understanding the community better but also generates respect for the community's lifestyle, traditional wisdom and resilience. Experiences of service provide opportunities to learn how to contribute meaningfully towards larger community causes and in the process children experience the joy of working selflessly. It is during service that the theory and principles learnt are tested on real grounds. Children get first hand experience to empathize and connect with issues of equality, justice and denial. It is during service that the dominant paradigm of competition, material success, scarcity mindset and monolithic standards of living gets challenged. Powerful experiences of service encourage learners to question their self-centered life style.

Therefore, it is important that we use service as a source and pedagog-

ic medium of learning and self- development in schools. The important aspect is that the experience needs to be authentic, which means children work towards addressing the real needs of the community.

6. CREW NOT PASSENGERS

Education should generate energy for life and this can be accomplished by experiencing a shared sense of responsibility in a journey towards an exciting goal. Therefore, it is important that children experience and take shared ownership of their learning in an expedition. The responsibility for learning should be co-owned by teacher and children and not be driven by teacher alone. This will make learning exciting for children.

Expeditions happen in crews. Working in crews help learners build trust and respect among themselves, and this is then extended to the community as a whole. It is here that children sow the seeds of shared commitment and inculcate a sense of responsibility for self, others and the society at large. Working on real life problems in an expedition sets the authentic context for children to work in crews- because real life issues are complex and can't be solved alone. Working in crews during the school helps children understand the value of interdependence and respect, which prepare children for fair, just and equal society. It also lays the foundation for peace and tolerance in the society at large.

Acknowledging individual differences in a crew profoundly increases the collective potential to learn and act. The company of a supportive crew helps each member to overcome his/her own limitations and in the process encourages him/her to perform much better than he/she ever thought possible. Children like to learn from and with each other. What they need is a caring and safe environment to learn- an environment where they can make mistakes, where failure

is not a stigma and where there is no fear of judgment.

The culture of care is essential for learning. To care we need to be sensitive and for that we need to be engaged in life. Compassion is about love and wisdom i.e. wisdom of relating with others with the intention of universal responsibility and welfare. To understand and experience compassion one needs to feel for others with a sense of responsibility for their welfare. Therefore, working in crews during an expedition gives opportunity to children to experience and demonstrate care and compassion. How we relate with others is an important life skill.

One of the important design principles that enable crews to take shared responsibility of their learning and the outcome is by making the learning process visible to them. It is important that children are able to see and understand their learning process and take responsibility for it.

7. LEARNING HOW TO LEARN AND CREATE

Each child is born with the innate capacity to learn and create. But the problem is that children tend to lose this capacity with time. One of the major reasons for this is the current fragmented system of education. Task orientation is the other.

The important idea is to help children in being aware of their learning process and build their mastery of 'learning how to learn and create'. This helps children in becoming self-learners for life. The capacity to learn how to learn and create is the mother capacity that gives birth to all other knowledge, competencies and skills.

Personal Mastery is a discipline of continually expanding and refining our capacity to create what we truly value in life. It means approaching one's life as creative work as opposed to being reactive

to events and situations. It is about continuously clarifying and deepening our personal vision, of focusing our energies on what is important to us, of developing persistence, seeing the current reality objectively and being proactive.

The purpose of education is not only to develop the required knowledge and skills in children but also to develop the fundamental capacity of learning how to learn and the mindset of creation and possibilities.

8. FREEDOM AND SELF-RELIANCE

True confidence and freedom in life comes from self-reliance.

What does it take to be self-reliant? It is difficult to comprehend it at



a cognitive level. To understand its importance in life, children need to experience it.

We would like children to experience, understand and practice self-reliance and sustainable living i.e. life, which is in harmony with nature, the inner self and the community. Designing work experiences where children work with self-reliant artisans/professionals on real-life problems/possibilities to address the real needs of the community can help children understand self-reliance and true freedom. We can use work experiences with self-reliant artisans as a pedagogic medium for teaching and learning in schools. This will make education real and authentic. During work experiences children will also experience the value of craftsmanship, character and conservation – these are important underlying principles of self-reliance. They need to learn how to conserve resources and how important it is for self-sustenance.

Most importantly, working with self-reliant artisans children will also experience what it takes to live a life of purpose, excellence, joy and freedom.

9. PRODUCTIVE WORK AS THE MEDIUM OF TEACHING & LEARNING

For Gandhiji, work was productive if it is useful & meaningful in the local context of the child and in doing of which a child can be made to think and the required knowledge, skills and values can be developed through it. The purpose of using productive work as a medium of teaching and learning is to develop the productive/creative capacities of the child i.e. capacity to think, plan, design, relate and act and in the process empower him/her for life and living. The idea is not to train a child for any specific vocation but to develop creative and problem solving abilities. Gandhiji strongly believed that by using productive work as a medium of teaching and learning in schools we could prepare children for a productive life and it will also help them



understand their local context, history and culture better.

The work culture in the community, systems and processes of doing work, raw material, tools, etc have their own way of impacting the child's ability to think, relate and create. This pedagogy also gives children the opportunity to interact and learn from the experts in the community, which further generates respect for experts among children.

Learning through productive work (done in the real and local context) provides children the integration and balance of head, hand and heart, which lacks miserably in our present education system. Children learn by doing - it is a very important step in the learning process. It gives children an opportunity to engage with the environment with all their senses and emotions.

The big idea is to create opportunities in our education system for children to figure out things with their hands and senses. One of the most effective ways of doing this is to use productive work from the local context as a medium of teaching and learning. When children create things with their hands, they experience the joy of self-reliance, creation and abundance. This not only builds confidence but also empowers children for sustainable and systemic living.

10. CRAFTSMANSHIP AND CHARACTER

When children learn through productive work (for e.g. local crafts) they develop a relationship with work and life itself. How one relates with work is very important. Does one see it as a duty to be performed, or a medium to express one's innate potential and uniqueness? Is it a means to satisfy personal desires and wants or a mean to contribute towards the development of the whole community? This relationship with 'doing' builds and shapes character. What we do in life and especially how we do it shapes our character.

Craftsmanship is an ethic – that of striving for perfection through continuous improvements and rework. It requires continuous planning and review, action and reflection. There is no goal or end objective; it is a way of life. As Ron Berger in his book 'Ethic of Excellence' says, *"If you are going to do something, I believe, you should do it well. You should sweat over it and make sure it is strong and accurate and beautiful and you should be proud of it."* This is excellence and it is not limited to work and action – it includes excellence in thought, spirit and character.

In any productive work there is no higher compliment fellow workers give to each other than this – that guy is a craftsman. This one word says it all. It connotes someone who has integrity and knowledge, who is dedicated to his work and who is proud of what he does and who he is. Someone who thinks carefully and does things well i.e.

craftsmanship in thoughts and action. Craftsmanship is excellence manifested in thoughts, action and character.

Some of the habits of craftsmanship and excellence are continuous planning, designing, reviewing, working with/through multiple drafts, learning from mistakes, continuous improvement, perseverance, managing tools, resources and the work space, doing more with less, etc.

What it takes to build the culture of craftsmanship and excellence? Ron Berger in his book 'Ethic of Excellence' says:

The key to excellence is this: It is born from a culture. When children enter a family culture, a community culture, or a school culture that demands and supports excellence, they work to fit into that culture. A culture of excellence transcends race, class and geography; it doesn't matter what color, income or background the children come from. Once those children enter a culture with a powerful ethic, that ethic becomes their norm. It is what they know.

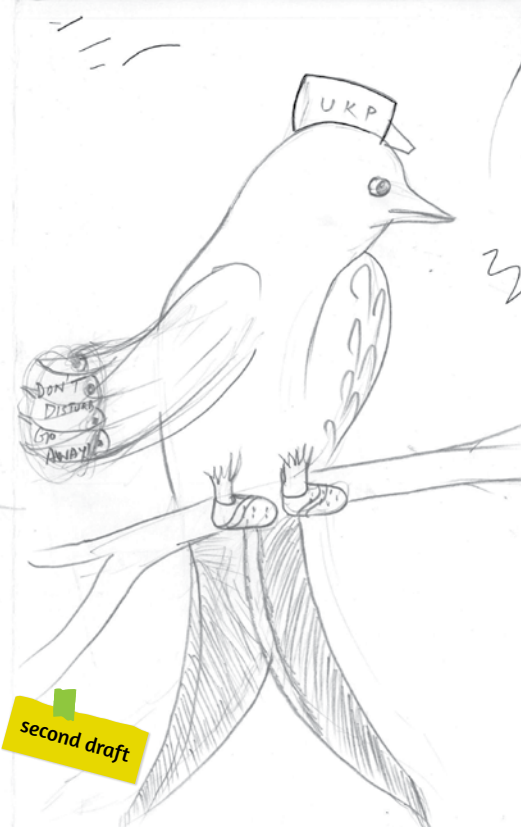
I believe that a work of excellence is transformational. Once a student sees that he or she is capable of excellence, that student is never quite the same. There is a new self-image, a new notion of possibility. There is an appetite for excellence. After students have had a taste of excellence, they are never quite satisfied with less; they are always hungry.

I believe the achievement of students is governed to a large degree by their family culture, their neighborhood culture, and their school culture. Students may have different potentials, but, in general, the attitudes and achievements of students are shaped by the culture around them. Students adjust their attitudes and efforts in order to fit into the culture. If the peer culture ridicules academic effort and achievement, it is not cool to raise your hand in class, to do homework, to care openly about school. This is a powerful force. If the peer culture celebrates investment in school, it is cool to care. This is just as power-

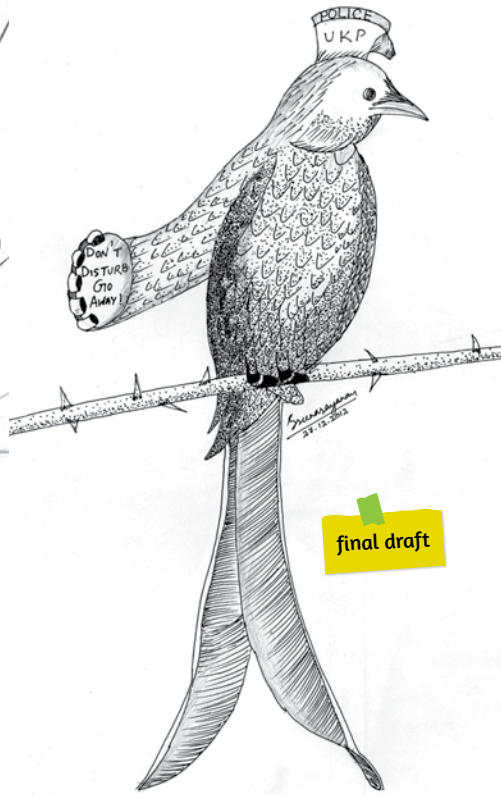
first draft



second draft



final draft

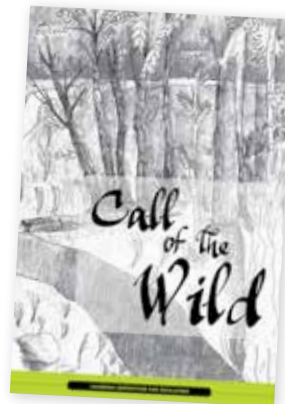


Learning through multiple drafts

This book was conceptualized and created by Courage to Lead participants of year 2012, for middle school children as part of their Jungle Expedition. This made their learning real and visible. This also gave them an authentic purpose and audience, which in turn made the whole learning process meaningful, engaging and challenging for them.

“Once a student creates work of value for an audience beyond the classroom - work that is sophisticated, important and beautiful - that student is never the same. When you have done quality work, deeper work, you know you are always capable of doing more.”

— RON BERGER, EXPEDITIONARY LEARNING, USA



final chapter for the book 'Call of the Wild'

ful. Schools need to consciously shape their cultures to be placed where it is safe to care, where it is cool to care. What if being normal in a school, fitting in, means caring about your work and treating others with respect? Schools need to reach out to family and neighborhood cultures to support this.

11. COURAGE

It takes courage to aspire. Courage is not the absence of fear but the judgment that something else is more important. Therefore, to know what is important to me in life is really important. We need to understand the difference between ‘what I need to do’ and ‘what is important for me to do’. If in twelve years of education, we can help children discover what is important to them in life –then half of the challenge is over. After that it is a matter of working persistently towards it –taking one small step every day. Courage is also about mastering the process of over coming fears, fears that we face at every step in our life.

The goal of education is to nurture courage in children to discover and create what is important to them.

12. INTEGRATION

In real life the problems cannot be classified as physics, history or civics problems. Instead, we need to apply knowledge from various disciplines to solve them. Using real life experiences as a pedagogic medium gives children an opportunity to experience problems and possibilities in an integrated manner and more importantly it provides an opportunity for them to apply their learning also in an integrated way. The understanding that the children develop is integrated and holistic. The whole process of learning through experiences leads to an integration of knowledge in a very organic way- the opportunity and space for which is lacking drastically in the present education system. The present system fragments knowledge and the learning process.

13. EDUCATORS AS DESIGNERS

In this whole process of teaching and learning through real-life experiences, the role of a teacher is more of a designer and a facilitator than the sole authority and source of knowledge. Knowledge is co-created in the process of learning from experiences. The knowledge provided by the teacher and the textbook is considered one of the many sources available to children. This reduces the dependence of children on teachers and textbooks and gives equal validity to other knowledge sources available in the community. The role of an educator is to facilitate the learning cycle and making sure that children with diverse learning needs and styles get equal opportunity to engage and learn.



Note: Disha India's learning design principles are inspired by the ideas and philosophy of Gandhiji, especially his principles and pedagogy of Nai- Talim. The Learning design principles are also profoundly influenced and guided by the work of Dr. Kolb (www.learningfromexperience.com), the principles and practices of Outward Bound (www.outwardbound.net) and Expeditionary Learning, USA (www.elschools.org).



Big Ideas & Guiding Questions

Setting the learning context, direction and focus for expeditions

Big ideas are enduring understandings that we would like to develop in children through learning expeditions during the twelve years of school education. These understandings will remain with children for years to come and will help them in figuring out more complex problems and systems later in life. Guiding questions provide the required focus and rigour in the building of enduring understanding of big ideas in a learning expedition. Big ideas and guiding questions

help educators in designing the learning expeditions and setting the learning targets for the expeditions. Following big ideas and guiding questions guide Disha India's Experiential Curriculum:

1. Understanding the local context i.e. physical, social, political and economical systems of my immediate community/society helps me in being an active and engaged citizen. Understanding complex systems empowers me to take responsibility for my local community and act towards it.

Learning in/through the local context not only helps me in understanding my local context better but also prepares me to map and understand the larger and more complex systems later in my life. Ability to figure out complex systems is an important life skill, which leads to true empowerment for life. Life is full of connected complex social, natural and physical systems.

To comprehend any social, political or natural worldwide complex phenomena e.g. climate change, terrorism, etc., I first need to experience and understand it in my local context and community. I need to see how it is getting manifested in my local community/city and how it impacts my community and me. If I can experience and understand the cause and effect of a complex problem in my local context through concrete evidence and data, then I will be able to comprehend it better at a global level.

- a. How has the structure of families changed in the last 20 years? How do people spend leisure time now?
- b. Who is responsible for essential services in my neighborhood/city? Where does the waste go from my locality? How do we manage our waste in the city?
- c. How has the natural habitat changed in the last 5 years around my home and school?

- d. Who is responsible for my city? How does the RWA and Municipal Corporation work?
- e. From where do the vegetables come in my kitchen? From where do I get milk? How do I get newspaper?
- f. What are my responsibilities and rights as a citizen?
- g. How has my neighborhood and society changed in the last many years? What are the important social and political challenges that we face as a community? What are some of our strengths as a community? Are we resilient as a community? How do we see and manage diversity in our community?
- h. How healthy are we as a community? How healthy is our food? How healthy and diverse is our environment? How green is our neighborhood? What are we doing with our waste?
- i. How are we managing our resources as a community? Will we be able to sustain ourselves?

2. Everything in life is connected. There are systems within the system. There are loops within in a loop. It is not linear. To understand systems both natural as well as social, I should be able to see connections and loops –and how they are connected with each other. Connections and inter-relationships are important in a system –the leverage for change lies there. To discover leverages for change in a system requires the capacity to see and act systemically. Ability to think and act systemically is an important life skill.

- a. How does a system work?
- b. Parts u/s whole. Understanding parts and their inter-relationship is essential in order to figure out the system.
- c. How are parts interconnected? How do parts influence each other?
- d. How does a system change over time? How does a system adapt?
- e. How can I see and experience systemic change? How can I develop the ability to see slow systemic changes?
- f. Systems are complex and are in a continuous state of change and flux.

- g. Systemic change is slow and gradual e.g. a frog in a tub can't feel the heat if we start heating the water gradually and it eventually dies; whereas, if we put the frog in a hot water tub, it will jump out with a knee-jerk reaction.
- h. How am I connected to a system? How can I effect change? How can I make a difference to the larger system? How can I find the leverage for change?
- i. The ability to act depends on the ability to think. Ability to think depends on our ability to see. Depending on what we are able to see determines the leverage we have for change. If we can see the underlying structure that influence the pattern of events then we can change the pattern rather than reacting to events. And if we can see the underlying assumptions that influence the structure/process then we are able to generate new structure and hence different patterns and events.
- j. The kind of questions I am engaged with determines the leverage I have for action and change.
- k. No perspective is complete. A combination of perspectives leads to better understanding of systems.
- l. How does the behavior of a system change over time?
- m. Trends & patterns change over time and are not discreet cause and effect events.
- n. Change is cyclic in nature. To look at it as a linear cause and effect is incomplete.
- o. Change does not occur in isolation. It is a result of multiple interactions and causes, which leads to further change at different levels and directions.
- p. To understand change we need to go deeper- from reacting to events to seeing patterns and adapting to them. From seeing underlying structure that generate patterns and to underlying assumptions/beliefs that influence structure. The deeper we go, better we understand the system and more empowered we are to act.
- q. I need to slow down to see and experience the systemic change.
- r. Developing an understanding of the current reality is the first step

towards change.

s. Understanding the 'micro' is essential for understanding the 'larger system.' Looking at the tree is important when we are trying to understand the forest.

3. Family is a microcosm of society.

a. How do changes in society affect families and vice-versa?

4. I reflect what my community is and I shape my community.

5. Where I live determines how I live

a. Different habitats have their own unique flora and fauna.

b. The weather conditions, natural habitat and other social factors determine the lifestyle, culture and layout of a place.

6. Function affects form and form aids function. Form gets evolved through time and every evolution tells a story about us and our world and how we adapted and changed with time.

a. Why is a beak or a claw shaped the way it is?

7. A direct and respectful relationship with the natural world refreshes the human spirit and teaches important ideas of recurring cycles and cause and effect.

a. Nature is connected. The more the diversity –more sustainable is the ecosystem.

b. To live sustainably, we should see, think and act systemically.

8. Nature our Teacher. Whenever we are challenged we look to nature for ideas and to understand any new idea from nature we have to study its design (form and function)

a. How does nature solve its problem?

b. How do we get ideas from nature?



9. Trees are alive like you and me. To conserve trees, we need to connect with them both emotionally and cognitively.

a. What makes each tree unique?

b. What does it take to connect with a tree?

c. Why do we need to conserve trees?

d. How does a tree live and reproduce?

10. Ideas, thoughts and systems have evolved through generations. Evolution is a very slow process.

a. What leads to invention?

b. How is invention different from innovation?

c. What does it take to invent?

d. What can we learn from nature about invention? How nature inspires invention?

11. Inventions and technology shape the way people interact with each other and the world. These reflect and shape human history.

a. How much of technology is enough?

12. It is important to understand history in order to understand the present.

13. I am part of the history of the future.

14. Buildings tell stories of the past. They are an important source to understand life in the past.

- a. How does a building tell us about the life of the people in those times?
- b. How do historians construct knowledge?
- c. How to look at the buildings as a source to construct knowledge of history?
- d. What does it takes to be a historian?

15. Diversity enriches life and helps in sustaining and adapting to challenges.

- a. How does Diversity lead to sustainability?

16. The way I look at things could be different from the way others look at them. There is no either/or in life. It is all about 'and'

- a. How the capacity to see and be with multiple perspectives be built?

17. Curiosity to know about my surroundings leads to construction of knowledge. Developing the capacity to construct knowledge makes me (the child) independent.

18. Through challenge and adventure in unfamiliar settings, we overcome physical, emotional and cognitive limitations, which helps us in seeing and experiencing possibilities and abundance in self and the world around. Engaging and meaningful experiences develop a new understanding which empower us for a creative and productive life. As a result the actions, thoughts and feeling that are invoked are of the highest potential and purity.

- a. How do I navigate the unknown? How do I face challenge?
- b. What makes me who I am? How do I learn? How do I relate? How do I solve problems?
- c. How to act and relate selflessly with pure intent?

19. When I create things with my own hands I experience joy, confidence, freedom and self-reliance

- a. What does freedom mean to me? What does it take to live with true freedom? Is self-reliance important for freedom?

20. Sharing is from what you have. Not postponing it for the future i.e. a time when I will have enough then I will share.

- a. What is service?
- b. Why do we need to serve?
- c. How to experience abundance? How to live life with an abundant mindset?

21. I can. I am not reactive to events/patterns/behaviors but choose to act. Choose to create possibilities...

- a. How to see possibilities?
- b. What does it take to act with courage?
 - b.i. Courage comes from conviction and faith.
- c. What does it take to act, to create new realities and possibilities.
- d. How to think big and take small steps every day?

22. Democracy is the best form of governance. It gives space to diversity. For diversity to flourish democracy is the best form of government.

- a. What is democracy?
- b. What are my rights and responsibilities in a democratic society? How am I performing my responsibilities towards my community?

23. Doing things with hands shape my character

- a. What is craftsmanship? Is it a skill or a way of life? Why is it important to work with hands?

“Our education has to be revolutionised. The brain must be educated through the hand. If I were a poet, I could write poetry on the possibilities of the five fingers. Why should you think that the mind is everything, and the hands and feet are nothing? Those who do not train their hands, who go through the ordinary rut of education, lack ‘music’ in their life. All their faculties are not trained. Mere book knowledge does not interest the child so as to hold his attention fully. The brain gets weary of mere words, and the child’s mind begins to wander. The hand does the thing it ought not to do, the eye sees things it ought not to see, the ear hears things it ought not to hear, and they do not do, see or hear, respectively what they ought to. They are not taught to make the right choice and so their education often proves their ruin. An education which does not teach us to discriminate between good and bad, to assimilate the one and eschew the other is a misnomer.”

— MAHATMA GANDHI

DISCUSSION WITH TEACHER TRAINEES,
HARIJAN, 18TH FEBRUARY, 1939





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