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Every Child Can Learn Part 1

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Learning Curve is a publication on education from the Azim Premji University for teachers, teacher educators, school heads, educational functionaries, parents and NGOs on contextual and thematic issues that have enduring relevance and value for them. It provides a platform for the expression of varied opinions, perspectives and stories of innovation; and, encourages new, informed positions and thought-provoking points of view. The approach is a balance between academic- and a practitioner-oriented magazine.

All opinions expressed in this publication are those of the authors and do not necessarily reflect the official policy or position of the Azim Premji University.

FROM THE EDITOR



Children are, first and foremost, individuals and so it follows that their developmental patterns are influenced by environmental conditions. With even twins differing in their abilities and milestones, it is near impossible to predict at what rate a child will learn. Thus, children enter school with a wide range of abilities - and therefore possibilities.

However, the assumption that all children can learn the basic curriculum at the same pace, in the same way and to the same extent and level is unsupported either by research or by personal experience. There are so many variables in our living conditions in economic and cultural terms and daily life is very culture-specific: what is considered essential learning in one part of the world could well be thought of as inessential in another. In this scenario, learning styles are bound to differ.

Further, when we say every child can learn, we are not taking into account the things that children actually do learn, largely untaught, in the first three years of their lives, in terms of cognitive and physical development as well as - and this is the most profound learning of all - linguistic ability. The linguist Noam Chomsky has asserted that human beings are born with a sense of grammar, which enables them to speak their first language without outside help. So, when we say Every Child Can Learn, a caveat has to be added. This learning is the formal learning that takes place when a child sets foot into a school. A UNICEF report says that schooling does not always '.... lead to learning. Worldwide, there are more non-learners out of school than in school'.

Every aspect of formal learning has meant - and continues to mean - structure, whether it is the syllabus, curriculum, teaching methodologies, classroom protocol, seating, timetables. The child who does not fit in or does not adapt to accepted

norms is labelled as being difficult or having learning difficulties without taking into account individual differences, although in principle, Howard Gardner's Theory of Multiple Intelligences has been accorded an enthusiastic welcome. If we agree that children have varied strengths (multiple intelligences) then it surely follows that teaching methods have also got to vary correspondingly and that there have to be multiple teaching styles. The education of all children presupposes adequate care, reasonable facilities, healthcare and nutrition, learning opportunities both inside and outside school, supportive adults (parents as well as teachers), a safe, non-threatening atmosphere as a background, especially at the pre-school level. If we believe that every child can learn then the responsibility to make sure this happens lies with us, as adults, not the children.

Some groups are more vulnerable than others - girls, children of the migrant labour force, children in conflict zones, dropouts and first-generation school-goers. Other factors also influence children's learning. Some of these are lack of trained teachers, poor training even where there are facilities, inadequate learning materials, poor infrastructure and nutrition, all play a part in keeping children from learning. In India, language is a major consideration. And while we assert that children learn at their own pace, our assessment procedures are so standardised as to create wide disparities. Everyone has to write and pass the same examinations and, later, entrance tests.

Without the skills that school learning provides, children are denied opportunities and are less likely to build better futures for themselves as responsible citizens; to get the best and give back their best. To address many of these concerns, this issue has a wide range of articles from writers across the country which establish resoundingly that every child can indeed

learn - only it requires empathy and compassion from the teacher to make it happen. The focus articles form the backdrop to the narrative and the other articles only confirm what can be done given the right attitudes. For instance, in one article, the writer describes the efforts taken to educate children in a remote part of the country which has diverse dialects, yet another shows what total involvement and empathy can do to enhance learning. Another analyses current education policies against a specific background, and yet another gives practical tips on the teaching of maths, typically a 'threatening' subject. Language acquisition is discussed in an article which recommends imaginative use of stories and pictures to teach reading and literacy, the basis of higher learning. The common thread running through all the articles is how, by applying thought, empathetic understanding and imagination, great things can be

achieved to bring out the best in every child but is discouraged from doing so by unimaginative and unsympathetic handling.

Our thanks are due to Rajesh Utsahi and his team for the translations.

Feedback is more than welcome, and we would like to inform our readers that a new feature - Letters to the Editor- carrying their views, suggestions and criticism will be introduced from the next issue of the Learning Curve. Please address your email to the id given below.

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Anant Gangola

The concept of *Education for All* is the foundation for an inclusive society but it cannot be made possible just by extending the existing idea and system of education. A paradigm shift in thinking is required. That is why, it is essential to think about the beliefs, ideologies, practices and resources in the current system of education and assess whether these are appropriate or need fundamental changes.

The journey of a dream

The idea of *Education for All* is a dream in which every individual in the nation is educated for the simple reason that education has immeasurable value in an individual's and a country's growth. In itself, it is a lofty ideal to pursue; an invaluable tool for bringing about changes in society – from illiteracy to literacy. It can be a vehicle for social transformation, from exclusion to inclusion, from inequities to equality, from injustice to justice, from conflicts to peace. So, the dream is multi-faceted, with diverse expectations of impact and implementation. Initially, it was the lack of will to bring everybody into the folds of learning that ensured that education was restricted only to the upper echelons of a society marked by severe multi-layered class differences and the failure to change may have been the lack of thought, collective social conscience, shortage of infrastructure or a mix of all these.

The first five decades post independence did not see education reach the majority. This distance was not merely the physical distance from the school building, but the absence of a belief system and educational priorities which ignored the power of education to take the fundamental steps towards an inclusive society. Many areas had no schools and even where both, children and schools, were available, the resolve to include everyone was missing.

Universal Elementary Education (UEE) with free and compulsory education for all children below the age of 14 years was mandated as per the Constitution and the successive Five Year Plans kept this target in sight. But the arrows fell short of the mark: the Radhakrishnan Commission (1948-49)

and Mudaliar Commission (1952-53) focused on university and secondary education, respectively, and it was only the Kothari Commission (1964-66) which expanded its purview to include primary education, although universality still remained wishful thinking.

A smoother road

Then came the World Conference on Education for All (EFA, Jomtien, Thailand, March 1990) and the World Education Forum (Dakar, Senegal, April 2000), bringing international attention to India, with outside funding and private players forming synergistic private-public partnerships. The Government's District Primary Education Programme (DPEP) was initiated in 1994, the flagship *Sarva Shiksha Abhiyan* (SSA) in 2000, followed in 2009 by the Right to Education Act.

In the past three decades, there has been an exponential growth in the number of schools, teachers and students at the elementary level, bringing several communities, which were historically outside the domain of formal education, into its fold. These include a large share of unserved or under-served communities encompassing tribal and *dalit* communities living in remote locations or in difficult terrains and a significantly large number of girl children. All these initiatives caused an explosion of hope and aspirations among parents because many whose children entered schools during this period had either not gone to schools or could not pursue education beyond the primary classes.

Education for All: a lighthouse

The achievements of the DPEP, begun in the '90s, have been extraordinary. *Education for All* has transformed our society by creating equal opportunities and injected enthusiasm, confidence, thought and knowledge into many who even in current times are surrounded by hopelessness, misery, inequality and poverty. Today, a large number of children from communities irrespective of their social, cultural and economic backgrounds and their parents have benefitted from education.

And even though the idea of scholarship is not new to India, the idea of *Education for All* is relatively new. There has been a silent churning for societal transformation. This has been a chance for the long-cherished dream to become a reality.

Concerns: the roadblocks

Although the present-day approach is towards inclusivity, we have to ask ourselves: are we ready to see, accept and work towards an inclusive society with this expansion of the idea of education to all? Do we collectively aspire for a more equitable and just world?

The answer to both is *no*. The Jomtien Conference (1990), followed by the Dakar Declaration in 1997 created an urgent mandate and made available the financial resources to enable the nations to go for *Education for All*. This resulted in the launch of the flagship program of SSA. New schools got opened, new students were enrolled, and new teachers were recruited.

But improving and creating new structures for teacher preparation and academic support was and remains one of the key aspects that has been left unattended for a long time. This has resulted in the entry of unprepared/untrained teachers with either inadequate or completely absent academic support systems. There was a limited understanding of how to deal with such a huge student population flooding the schools, many of whom were the first-generation learners in their families. Children were unable to understand the language and culture of the school and teachers were unable to deal with the language or culture of mixed, large groups of children. For most teachers posted in government schools in the remote parts of the country the challenges of living in communities different from their own or commuting to distant schools was a challenge. Untrained and poorly paid teachers were handling the education of the most needy, disadvantaged children. Poor understanding of the entire range of issues resulted in the creation of a non-performing public education system, non-learning children, disconnected communities and demoralised teachers.

Time to evaluate

How can this be fixed? Is it possible to achieve the goal of education for all with the existing understanding, concerns, structures, sentiments and strategies or does it require new understanding, new concerns and sentimentalities, along with new

strategies, structures and criteria?

Big changes mean many small changes.

The first change was the admission of non-enrolled children from different communities and genders into government schools, at the same time, distancing the privileged, who shifted to private schools. As a result, government schools became schools for those from the poorest backgrounds who had no other choice.

The second change was the creation of space for NGOs to engage with the government education system. NGOs started playing different roles in schools and the Secretariat at the national, state and local levels. The contribution of organisations, like Teach for India (TFI), Kaivalya Education Foundation, Azim Premji Foundation and many more began to create an impact on the ground. The field now has more people and groups involved who are bringing in different kinds of discourses for consideration.

The positive side of all these developments is that those who were left out came into the fold of acquiring the most vital life skills of our time: reading and writing. Many scholars and socially aware people began sharing the responsibility of providing quality education. A lot of advocacy started to emerge around Early Childhood Education (ECE) to improve the health, nutrition and social foundations of children's early years. However, the other side of the story is that there were half-hearted commitments and political will; complete apathy from the larger part of the society, and; an absence of educational research and innovation to understand needs and demands. Therefore, the immediate effect and impact on the learning outcomes and the learning experiences of children are not encouraging. The first description, of the positive side, gives hope and helps in fighting pervasive despair but the second, consciously or unconsciously feeds more despair into an already frustrated society.

According to my understanding and perspective, the suggestion of education for all is a new and challenging social concept. The evaluation of older, existing standards against the new context is only able to bring out the problems inherent in the situation, resulting in an incomplete and misrepresentative picture. It could also further disappoint those engaged in the efforts of education. Therefore, finding new standards for this great project requires a new outlook.

Understanding changing contexts

Our country is not only full of diversities of all kinds, but also inequalities. Firstly, children, teachers and others working in the education sector come from a society which is traditionally patriarchal and feudal. Secondly, schools also function within these and many other social, economic and religious inequalities. The third dimension is that education would lose its meaning when seen as distinct from social-political equality, mutual sisterhood or tender-heartedness.

Let us look at this issue in the light of a few incidents. The Principal of a district institute of education and training (DIET) reached a school in Central India for inspection. While reviewing the attendance register, he felt that the names of some of the children were not correct. The principal discussed this matter with the teacher. The teacher said, 'Sir, what can I do? Their uneducated parents have named them like this.'

The Principal sent the children home to call their parents. The school was next to the village where most people were from the *Baheliya* community. Their occupation of catching birds was carried out in the mornings or evenings, so they arrived at the school shortly. The Principal, then, started changing the names of the children to more sanitised or 'civilised' versions, for example, *Chinta Bai* was renamed *Chetna Kumari*, *Kallibai* was changed to *Kalavati*. Whether the parents liked it or not, they did not raise any objections. They probably accepted this as a condition for gaining education for their children.

The changing the names of *Chinta Bai* and *Kalli* raises some vital questions:

- If the school has no space for the names of these children, would it give them space for their *life experiences*?
- Is education meant only for that class of the society that is represented by Chetna Kumaris and Kalavatis?
- Would a particular community be required to sacrifice their cultural identity to gain education?

Other examples can be cited.

It is common in schools to praise children who wear the cleanest clothes and punish those whose clothes are dirty. If we look at this carefully, our attention would be drawn to the emotional damage such incidents may cause the children. Language is also an important issue. Its standard form, appropriate pronunciation etc. create an

identity crisis for the first-generation school goer. Anybody who has experienced this knows that it is humiliating and can shake the self-confidence of the person. Teachers often place those children who are struggling with these concerns in the category of those who are '*not-able-to-learn*'.

All these instances raise questions regarding the understanding and sensitivity around education. The big questions are:

- Should children fit into a mould, or should educational systems be flexible enough to change according to their cultural backgrounds?
- How can we establish the interaction between the existing knowledge of the children and the process of knowledge construction in school as extremely important?
- How can such an understanding become a part of the educational process?

Let us look next at the teachers' preparation and autonomy. In this context, I am reminded of a thought-provoking incident from my teaching days. One day, children of my class were constantly complaining about a child called, Gundilal. I had given the children some work to do and was busy finishing some of my own work, so my complete attention was not in on the class. When it became difficult to ignore the complaints, I called Gundilal and sternly told him, 'You are being very naughty! Hold the ears.'

Gundilal did not respond, so I said it again in a raised voice. This time, he came forward and held my ears. My first response to his action was of surprise and anger and then I realised that my instruction was only to hold the ears. So, Gundilal was not at fault. He did not associate *holding ears* with punishment nor did he have any previous experience of such behaviour.

There are many such things which we assume that all children know, forgetting that the atmosphere and practices of school are new to first-generation school-goers and they may find them not just odd, but counterintuitive.

My journey...

The experience of working in a tribal village, situated in the middle of a jungle in the Raisen district of Madhya Pradesh taught me many things, but the one thing that I would like to mention here is directly related to the central idea of this article, *Education for All*.

When I started teaching the children from the Gond

Adivasi community, who for centuries have spent their days grazing goats, shoeing birds in the fields, collecting *tendu* leaves, or *mahua*, digging *moosri*, climbing trees, swimming in rivers, I realised very soon that making them sit in one place for four or five school hours would in itself be a major challenge. These children were used to walking many kilometres in a day and were habituated to physical labour.

How would it be possible for them to sit in one place for such a long time? Then, how would I manage to transact the competency of reading and writing? What was the significance of the Sunday off for people who had their weekly bazaar on Tuesdays? How did the role of children change in small peasant households when it was time to sow or cut the crops? What was the relation of such a context with the administration of a school? These questions should present themselves to all those working with schools at different levels. They necessitate viewing the school in a different way, making it essential for us to step away from the existing assumptions of school being a fixed place, the day divided into 45-minute periods structured in a timetable. A differing physical and cultural orientation of children, bearing in mind their habits and interests requires restructuring the whole education system, including autonomy for the teacher.

When I was working as a teacher, circumstances were favourable for me. The school was not a government school and did not require government registration. Also, the people of the village did not have a fixed notion of education in their experience or aspirations. Both these things provided me with the flexibility I needed to experiment with new ideas, keeping in mind the interests and context of the children. I utilised this suddenly gained autonomy as a teacher to the fullest. The results were better than expected. Most of the children transitioned to the world of literacy with a lot of interest and almost half of them continued their education beyond the school and, compared with the other children from their village and other nearby villages, they made significant achievements in education. There was no reason for these children to lose their self-confidence or cultural identity.

Changing the narrative - the way forward

No transformational social change has been achieved without building a positive narrative and countering the negative perceptions around the core idea. At the level of primary education (and

at certain levels up to the elementary level) the public education system has become a place that serves the children of voiceless, or choice-less communities. The shift of the elite and middle class from government systems to private schools is a shift from both the school as well as from the system itself. This has led to adverse criticism of the government education system with complete ignorance of the implications of such criticism on the parents whose children are in government schools, the larger teacher community as well as the Government itself. Such a defection, from the public to private schooling, gives rise to pessimism and widens gaps in society.

When a child crosses the threshold of school, she not only brings her bag, slate and chalk, books and notebooks, but also her complete social and cultural background: her full or empty stomach, her curiosities, her fears, hesitations, mother tongue and other facets. And if this child comes from a family that has not previously had a relationship with the structure of education, then the school and the teachers are required to be even more flexible. If the demands made by the teacher or the school are strict and if they are unwilling to bend according to the needs of the child, it leads only to one result – failure. And this result is viewed by society as the child's failure. For children like Gundilal, Chintabai and Kalli, who are already disadvantaged, to be successful in school would require the creation of opportunities which respectfully include their culture, experience and talents. Whatever happens in the school would have to pass the test of the needs and background of these children.

There is a long list of people involved in this task of *Education for All* – from ministers to officers, educationists and teachers. People from voluntary organisations have also now joined this list. But the most important role is that of the teacher. Ensuring thoughts, resources, autonomy and respect for teachers is primarily the responsibility of the government education structure. This includes policymakers, administrators and training institutes. We should ask this question before raising questions about teachers and the state of education in current times: is the understanding, resources and respect available to the teachers appropriate and adequate for a task like *Education for All*? According to me, the kind of preparation that a teacher needs to work in the context of *Education for All* is not being provided by either the government or society, though it is unclear

whether the reason is the lack of will or the dearth of resources. If the task at hand is challenging and new and the preparation to achieve it is incomplete, then how can one expect large scale positive outcomes? If we consider education for all as a fundamental step towards an inclusive society; then how can the concerns emerging from it be limited to our concerns of quality education in terms of language, mathematics and traditional teaching of other subjects and assessment? We need to redefine the expectations society has from

education and also look at curriculum and teacher preparation in a new perspective.

There is an urgent need for developing a shared understanding that on the one hand places *Education for All* in the collective conscience at the centre of the creation of a better society, motivates people who are working towards this social project and, on the other, provides respect, support and welcomes the teachers - the torchbearers of this project.



While living in Neelgarh village of Madhya Pradesh, **Anant Gangola** worked for many years towards creating an alternate education for tribal children and thereby, got an opportunity to study and understand deeply the lives and environment of the tribal people. He was later the District Coordinator for the District Primary Education Program (DPEP). For the last fifteen years, he has been with the Azim Premji Foundation and has the experience of working at the ground level as well as at the district and state levels. He may be contacted anantgangola.ag@gmail.com



The notion of education for all and ensuring all learn to read and write and have access to all sources and choices of education is a recent one. It is a part of the movement to evolve a society that respects all human beings and treats them with a sense of equality. This movement is less than a century old and does not cover a large part of the world yet. It is not even a widely accepted principle in places where it is mandated, in spite of the policy and the international agreements and pronouncements.

Maintaining social hierarchies

The tenuous idea of providing aspirational opportunities to all members of the society was a big departure from the historically transmitted iniquitous treatment and lack of opportunities for the large majority of people. The idea of education for children may have been a part of many earlier societies in some form or the other but in most of these, education provided to all children was not the same and it was not compulsory. In many places, there were different kinds of schools for children from different backgrounds and even their curricular expectations and methods were different. The principle of these schools and the broad principle that guided schools was largely towards maintaining social relations and social order. The statement attributed to Tsar Nicholas I in the 18th century sums it up best:

‘It is necessary that in every school the subjects of instruction and the very methods of teaching should be in accordance with the future destination of the pupils, that nobody could aim to rise above that position in which it is his lot to remain.’

This idea of education is very different from one that would allow for and expect social mobility seeking to keep the continuity of the social hierarchies and situations the underlying philosophy in the statement of maintaining iniquitous social order. This is in stark contrast to some of the recent philosophical positions. For example, the more recently articulated human capability theory, of which Amartya Sen is a main proponent, argues that education is the way to build the capabilities,

as well as aspirations, of children so that they can choose to become a part of society in a role they want and in the choosing that is aware of all the possibilities that exist and feels empowered to be any of that. This expectation from education is much more than what the international agreements and the right to education provide for. Yet, even the right to free and compulsory education has come with a lot of struggle and the commitment to its implementation leaves a lot of gaps. For example, it does not clearly specify the aims and purposes of education in the same manner as the human capability framework does. So, the point is that while all societies want children to be educated in some way, the philosophical principles, the aims and therefore, the intent and the mechanisms visualised can be very different. So, we need to think about why all societies want all children to be educated and what is the education appropriate for them.

The requirement is clear that all human children would be taught by the society and that they would have the ability to learn and this is part of human development and socialisation. The need for education to be more than what the family could provide access to as the available human knowledge increased, led to the emergence of some as teachers and for some organised form and structures for them to teach children. As a result, schools of different sorts came up in different societies and communities. These teachers and these organised forums were very different from the nature of the present-day schools. They were neither funded by the State, nor run by it, nor available to all and were largely not for common good. It was largely for the good of the elite and maintenance of the state.

The education processes at that time were oral communication and comprised the essence of the rules, regulations, norms and rituals that the communities were based on. The scriptures being taught also contained the development of a perspective on and a view of life and being. This was, however, embedded in the ways of

behaviour and rituals that were taught. Apart from this, there was knowledge about nature, rules of logic, science, trades and crafts as well as the then available medical knowledge that was taught. The forms and structures of imparting these were varied and so was the content, even though many essential principles may have been the same. There was no compulsion, however, that required all children to be formally educated in this or any other knowledge.

We can also say that as societies developed the nature of schools, how they were run and what was taught in them also changed. And as we move comparatively closer to today, that is, in the period around the 15th Century, education began to be led by the institutions that were connected to some form of spiritual and religious moorings (*ashram* schools, *madarsas*, convents, monasteries are all examples of that). All these spiritually inclined structures were not part of organised bodies and in many societies, were run by individual teachers. What was expected to be learnt and what was taught and assessed also varied from society to society and indeed from institution to institution.

The question of inclusion of all children in the process of education arose due to the need to provide parents the opportunity to go to work in places that had fixed hours of work and where it was important for the worker to follow a certain discipline of time and manner of work. Besides this, some skills were also needed, for example, it was also required that a child must be able to follow instructions. So, like the training of the warriors and the upper elite girls to be society women, now there was a reason to have children from other backgrounds to be in the school. Education expanded to include a wider set, though whether all children could learn was hotly debated as well. The tension between the few who believed that all children could be taught in some way or the other, and the many who believed they could not, continued. This is evident from the story of Socrates teaching the slave boy and similarly, the film about an English professor teaching a girl from a different background to be and function as a lady (*My Fair Lady*) indicates the struggle that has been in the consciousness of the society about inclusion.

However, the evidence of learning shown by socially and economically deprived children, the capability shown by girls in doing science and mathematics and other such examples,

gradually, forced the system to accept them as equal, at least on paper. In practice and in thinking, however, attempts to research to find evidence, citing chosen anecdotes to argue and using other means to show that deprived children and girls are inferior, and incapable of learning abstract and complex ideas continues. A lot of effort is also addressed towards conclusively demonstrating that the iniquitous treatment is justified by citing previous karma or the current potential and capability.

In the end, the advocacy of those who believed in equality of humans and the overwhelming evidence against inherent comparable incapability led to a change in the policy articulation and the framework based on the premise that all children do not need to be educated and in fact, a large majority of them are not even capable of learning.

As pointed out above, girls were a major component of the excluded children as they were in almost all cases left out by design not just from educational processes, but also from senior positions and as research leaders. The few women who were educated were educated in the limited framework of education for the girls and not through a universal programme for all children. The inclusion of all girls in a universal school programme and expecting them to do mathematics, science, engineering, etc is still not widely acceptable, even to people who have the task of educating them and making their education possible.

The inclusion of all children in the education process, therefore, has to recognise the role of the state and the common people in this effort. Education also has a cost: the costs of the school, the costs for the family to send the child to the school and cost and ability to support the child in her/his learning after school. With the low income available to many families it is not possible for them to find the money for meeting the costs of sending and supporting children learning after school.

As I have said in the beginning, the dominant understanding about the approach to educate everyone is to be useful members of the society and help form a stable society. It has an implication that each child must get education as per the role that is decided for her or him.

Emergence of the new elite

The democratisation of society, industrialisation and the churning up of opportunities had led to education becoming necessary and hence, possible for a larger number of people. There were (are now many) more children in schools than before. The increased complexity of society and skills required for production and management demanded (and demands now) a much larger number of such persons and with varied skills. And even among those who worked with hands, there were many who required specific education and skills that were crucial to the economy. There was some mobility after the change in the means of production and the nature of the market that led to more mixing and emergence of a new elite. This elite also wanted to share leadership as well as economic gains. The growing economy and technology and this struggle brought in 'meritocracy' as the major criteria for access, selection and mode of exclusion. This had to engage with the co-existing notions of democracy and welfare. The resulting undercurrent of tension between the strands of education to be exclusive and education for a larger number and diverse set of children has continued in various ways. As the concept of democracy and welfare role of the state grew after the experiences of the earlier half of the 20th Century, so did the need for every child to be formally educated and the concern about the purpose and nature of this education. The Indian Constitution reflected the struggle between the maintenance of status-quo in social hierarchies and the inclusion of all in a common programme of development. The preamble articulated a commitment that was difficult to achieve and also was hard to accept and have faith in for the administrators.

The 1986 education policy brought the tension to a head and put into focus the real intent and prevailing policy and public belief by defining education as *human resource development*. The choice of words was clear: human beings were 'resources', they were meant for the development of the nation (read economy and the market), like the funds for development. Each individual is an isolated individual and the goal of the economy and the market is to maximise consumption without any concern for equitability of distribution. The principle is to focus on individual needs to build possibilities for maximum individual pleasure, possessions and consumption of materials. The individuals have no social responsibility, because the accepted

principle is that those who are without even basic necessities are in that situation because of their lack of educational investment (in terms of their own effort and in terms of their parents' commitment, effort and contribution for their education). Thus, this inspired by the Human Capital Theory (HCT) implies that in such an economy, the educational objectives and activities have to be increasingly determined by *market analysis* and such technical considerations that help the market grow rather than any other ethical or moral principles.

The fundamental challenge to including all children in formal good quality education programmes today is therefore the lack of faith in the philosophical moorings that demand it. The promise in the Preamble of the Constitution is neither understood nor accepted. It is clear that the inclusion that desires equality of opportunity cannot be achieved without ensuring that the exposure, facilities, choices and options for development, at somewhat comparable level, are available to all children.

The process requires the belief that all children can learn and need equal attention and care. The expectation in the human capability theory from education is that it would give each child the awareness, possibility and capability of choosing her/his pathway and being what she/he wants to be. In contrast, the prevailing principles on which education system is built, develops the child growing up as a part of the human capital wealth and be an income generator in the economy to maximise market exchanges. This formulation considers all expense on education as economic investment and seeks a return on investment in terms of growth of the economic production. As the possibility of expansion of numbers of jobs and upward mobility has declined, education for more people is increasingly being threatened. Education has increasingly become a narrower and narrower sieve to filter out a lot of children. That has become its operative purpose and its purpose and its availability adjusted accordingly. Good quality education has thus become more exclusive and more and more specialised, with expensive opportunities being created for the elite. While the conceptual documents and stated objectives may be close to the spirit of the Preamble and some nuanced shades of the capability theory, the reality is that even the rights framework has become restricted to education that is minimalist and aligned largely to the human capital theories.

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Teacher Belief in Children's Potential is Important

Vimala Ramachandran



"If I summarise the core beliefs and pedagogic practices that we saw in these classrooms, the foremost would be the teachers' belief that 'every child can learn; the responsibility is ours.' These teachers try to make the learning experience interesting for every child and respect the existing knowledge they bring to the classroom, using it to build new knowledge... These teachers help children connect concepts with the world around them..." (S Giridhar, 2019. p122)

As I read through S. Giridhar's recent book *Ordinary People. Extraordinary Teachers* (S Giridhar 2019) one common thread that ran through the lives of extraordinary teachers is their belief that every child has the innate potential to learn. This belief made a huge difference to the way they worked, the pedagogy they used and most importantly their relationship with children.

My own research over the last thirty years has convinced me that teacher belief is important because it influences her/his attitude towards children, the pedagogy she/he uses in the classroom and most importantly, her time-management to ensure that she is able to reach out to every single child. In the same vein, teacher's prejudices, biases and attitudes can also be a critical barrier to learning. If teachers believe that some caste / class of children do not have the innate ability to learn, they are most likely to ignore the concerned children and focus only on those who they believe can learn. If a teacher believes that girls cannot learn mathematics, then he/she will communicate that feeling and girls may feel afraid to ask questions or clear their doubts.

At the outset, it is important to differentiate between teacher belief and the knowledge that teachers have. There are two kinds of knowledge – 'objective knowledge accepted by a community (e.g. official subject matter knowledge) and subjective knowledge. Belief represents individuals' subjective knowledge and is distinguished from objective knowledge...' (Turner, Christensen and Meyer, 2014, p 361). In a study on inclusion and exclusion that I led in 2011-12 for MHRD, GOI we

found teachers and school leaders who believed that children from very poor families – especially tribal and Dalit children – did not possess the innate ability to learn language, mathematics and science. As a result, they did not make any effort to reach out to children they believed could not learn (Ramachandran and Naorem, 2012). In the same study, we also came across teachers who genuinely believed all children can learn and that the home environment need not always be a barrier to learning. When we explored this further, we found that the subjective knowledge of such teachers was based on their experience of effectively working with very poor and marginalised children and enabling them to grasp basic concepts. Equally significant was that these teachers tried to build on the knowledge that children brought into the classroom.

For example, there was one teacher who made columns on the blackboard and wrote down the same word as used in different languages – in the main language of that area, in the dominant tribal language of that area, in the language of the minority tribal group in the classroom and also in English. By acknowledging and discussing how the same object is referred to in different languages represented in her classroom – she immediately included each child in the learning process. In another school, I saw a teacher using bundles of leaves and sticks to teach place value. Children of one of the poorest communities in that village were used to seeing their parents making bundles of leaves and counting them. Children often assisted their parents in making bundles of 50 leaves or 100 leaves. Linking mathematical concepts to real-life activities had a magical effect – the children found learning to be fun and identified with the activity.

We also came across some very interesting contradictions. 'Discussions with teachers from six sample states also highlighted a common perception: children from very deprived social

groups do not perform well in school. Interestingly, information from the same schools also revealed that this is a misconception and that many children from deprived social groups were actually performing well academically. There is a disjuncture between teacher' perceptions and reality, and it is noteworthy that teachers themselves pointed out the children who were 'bright' and keen on studies (many of them Dalit/Adivasi), and at the same time, they continued to hold on to prejudices and stereotypes..." (Ramachandran and Naorem, 2015 pp 25-26) When we pointed this out to the teachers, they talked about exceptions, attributing the 'success' to the extraordinary abilities of the individual child, even though he/she came from a social group or family type they considered incapable of learning.

Global evidence shows that 'some strong beliefs about teaching and learning hindered teachers' adoption of constructivist, or learning-focused, pedagogy. First, many teachers tend to consider both learners and content as fixed, rather than interactive and malleable. These teachers appear to believe that both development and individual differences, such as intelligence, limit their ability to teach the curriculum, so it must be adapted, by style or pace to "fit" students. A corresponding belief is that teachers may assume that if something is taught (i.e., explained or demonstrated), it should be learned (Nuthall 2004). If students do not learn, the problem is attributed to the inadequacy of the students' (stable) motivation, ability or persistence, but not to the instruction (Floden 1996). Such beliefs are in stark contrast to beliefs that guide an interactive approach...' (Turner, Christensen and Meyer, 2014, p 362; Nuthall 2004 and Floden 1996 quoted by Christensen and Meyer).

The problem centres around teacher beliefs that teachers need to focus more on classroom management, rather than ensuring that every child learns. This belief is reinforced when the government directs teachers to complete the curriculum – expecting teachers to adhere to schedules that are set by the respective state governments / boards of education. Discussions with teachers reveal that they are constrained by the time-table of completing specific sections of the curriculum each month. This becomes evident when students are asked why they take tuitions.

Students say that tutors focus on ensuring every lesson is learnt or committed to memory. Lessons and linked questions and answers are systematically memorised – in order to enable the student to take examinations. Passive observations or participation is not encouraged by tutors, while in the classroom, teachers tend to ignore children who are seen as not 'up to the mark', thereby encouraging passive observation or sitting in the back benches and ignoring what is happening in the classroom.

While rote learning has become a norm in both classrooms and tuition centres, teacher belief on the potential of children is the key to understand the teaching-learning processes in schools and tuition centres. As it was found in the 2015 study (Ramachandran and Naorem 2015) by the author, the expectations of teachers from some students or caste/gender or social class stereotypes that teachers bring into the classroom make a huge difference. These stereotypes are like self-fulfilling prophecies – neglecting those who are perceived as incapable of learning – that push such students into a passive and disconnected space inside the classroom. When children are marginalised inside the classroom, they switch off. As children move from one grade to the next, the prevalent regime of *no-detention* (as interpreted by the teachers as *no assessment*), adds to the cumulative burden of not-learning. Focus-group discussions with children who dropped out after enrolling in class IX revealed that they could not cope with the academic requirement and therefore had little option but to drop out.

Failure and inability to cope with the studies emerged as an important reason for children dropping out – the parents of children who dropped out said, 'There was a shortage of teachers, no studies happening in the school - so the children dropped out (*Padhai chhoot gayi*).'

In another group, the parents said, 'We wanted our children to continue after grade 8, but they decided to leave because they "did not learn anything much up to grade 8 and therefore they did not want to study" - they found studies difficult.' Interestingly, not interested in studies turned out to be a way of informing the research team that the children were not learning. (Ramachandran and Nagpal. 2019).

None of the above insights and information is new – the education community has known all along that teacher belief is perhaps the most difficult issue to address. Administrators, teacher educators and educational researchers are at a loss on how

to handle this issue. Despite this understanding, in-service teacher training has primarily focused on specific subject knowledge or conceptual understanding – referred to as *hard spots*. There is almost no systematic effort to address existing beliefs and prejudices. This has been a neglected domain – even though case studies of exceptional schools or teachers repeatedly point out that motivated and highly engaged teachers make a difference. Even when they have poor subject-knowledge, they are known to reach out to other teachers or other support systems (like teacher forums or subject forums) and seek help.

Periodic assessments – whether it is done by the government (NCERT) or private/non-government agencies (ASER, EI) – have told us that there is indeed a huge learning crisis across the country, in government as well as private schools. Yet, the pressure is on doing more assessments and (more recently) randomised control trial (RCT) studies. What India needs to do is take a lesson out of the Polish or Finnish example and turn the spotlight on teacher *beliefs*, teacher *confidence*, teacher *autonomy* and the knowledge and skills of teachers. While the draft NEP 2019 acknowledges the learning crisis, there is very little there on how this crisis can be addressed.

The issue of learning and quality of education is closely intertwined with social and economic inequality. It is now universally accepted that the *social capital* that children bring into the school is an important predictor of success – meaning that children who have educated parents, have access to books and other reading material, greater

exposure to the creative arts, media and live in resource-rich environments – seem to gain a lot more from the educational process as compared to those who come from resource-poor environments. Conversely, children from socially and economically disadvantaged communities, who face different forms of discrimination inside the school from their teachers and fellow students, leave school with poor self-esteem and confidence and very little ‘learning’.

Girls carry an additional disadvantage as they move higher in the academic ladder – they do not get the subject of their choice and in many states (especially in some North and Western states) girls’ secondary schools do not offer science, mathematics or commerce. Similarly, children in tribal areas and from the most disadvantaged tribal communities, not only experience discrimination but have far poorer access to schools beyond the elementary level.

Bringing teacher beliefs centre stage can help us create a dialogue on why it is important for every single teacher to genuinely believe that every child has the potential to learn. Maybe this is too much to ask in the times when social polarisation is increasing and our political and social leaders are busy promoting more prejudices rather than convincing people that education, if imparted equally and in a manner that all children get a chance to learn, can be the only way our country can move forward. Maybe it is a good time to start with teachers, their attitudes, beliefs and their knowledge.

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Engaging Children Through Storytelling

Amrita Masih



As a teacher, I believe that children retain a subject that is delivered in the form of stories far longer than they do through conventional teaching methods. Storytelling, especially in the case of languages, engages children in such an effective manner that they are able to remember concepts or characters for a longer period of time.

Keeping this in mind, I thought, why not take some ideas from the students about their views on storytelling before making my own teaching plan. If teachers consult children regarding the design of class activities, it helps teachers plan according to the children's needs and interests and to enhance their engagement in the classroom process.

So, I asked the children what they thought about storytelling. This is what they shared with me: *We come to know about new words and sentence structures through storytelling. We also learn to frame questions. Reading and writing and spellings become easier because it is so much fun. We learn the right pronunciation of new words.* I felt very happy to get the children's views. Children think like us, but we adults, sometimes do not give them space to share their views on classroom processes. When teachers discuss and plan along with children, we can see their interest and engagement during the activities to which they have also given their ideas. Here is an example:

Teacher: Should we focus on all the ideas which you gave me for the story which we are going to read today or tomorrow?

Children: No, we will focus on three ideas.

Teacher: So what should we focus on?

Children: We will write the new words from the story, look up their meanings in the dictionary and also frame some sentences with the new words.

Teacher: Ok. What else should we do?

Children: We will do reading and writing practice.

Teacher: Let us decide on the story.

I gave them a few books to choose the story for the storytelling activity. They chose *Alice in Wonderland*.

I started telling the story. All the children were listening carefully, appreciating the pictures in the story as I was showing them the pictures from the storybook. Some children were carefully listening to my voice modulation while reading the story. After reading two paragraphs from the story, I asked some questions: Tell me some words from the story. Who are the main characters till now? What is the story talking about?

After listing some words which they had heard, the children said that the main characters in the two paragraphs were a little girl and a white rabbit. The story was about a little girl who was running after a rabbit. We were also talking in between about different objects and the characters which were in the imaginary world of the story. After the story ended, we had a talk on the different words they had heard for the first time and looked them up in the dictionary and framed sentences with those words. The day's class ended with a wonderful experience with the students.

The next day, I divided the students into groups of twos so that one child could learn (peer-learn) with the other. It was a reading day for the children with some children asking for the pronunciation of some words and we planned on seeing a video of *Alice in Wonderland*.

The following day, we started with a video of *Alice in Wonderland*. The children sat quietly in the library room where I had arranged the movie for them. We decided to discuss the movie after seeing it. After watching the movie some of the children said that they had not seen such a wonderful and imaginary movie before. They were all very happy to discuss the movie. They enjoyed the movie and we discussed the differences between the movie and the book. The next day, I told the students to write their own story of *Alice and the White Rabbit*. I will share some stories and different questions written by the children.

Finally, I put up six jumbled sentences based on the story and asked them to arrange those in the proper order. Most of the students were able to do

the correct sequencing of the story. We did some activities – jumbled words, fill in the blanks rhyming words – all prepared by the children.

This storytelling activity was useful because students got interested in learning a language through different activities in which they were actively involved from the planning stage. It showed that changing some strategies helps the teacher as well as the students to learn.

Some ideas for a language class

1. Involve the class from the planning stage but be clear what is to be taught.
2. Split the plan into smaller items: understanding the story, reading it, writing about it, pronunciation, sequencing, etc
3. Choose simple storybooks without too many characters.
4. Show the movie on the story, if possible. It involves the children more.
5. Let there be oral and written work.



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Creating a Supportive Learning Environment

Aruna Jyothi



The statement, *Every Child Can Learn*, makes me think, *learn what?* Because to me, at one level, it is obvious that every child can learn.

It becomes a moot question when we look at learning as something that happens only in schools. School means learning to *achieve, compete, perform, succeed...* We as parents or teachers aspire for our children to succeed in life. The child's *capacity, interests, challenges, abilities*, do not seem to matter here. Therefore, sending children to school and that too to a 'good school', the definition of which varies for each one of us, becomes a very important part of parenting

'While the basic aims of education are to enable children develop their potentials, define and pursue a meaningful path in life; globalisation has put an extra pressure on the education system to create 'winners' who are ready to battle in the race for the survival of the fittest.'

This statement by Meenu Anand reminds of the movie *Tare Zameen Par*, I liked it till the point where a caring teacher identifies the child's problem and finds ways to motivate him. Recognising talent in children is important because it boosts their self-confidence and gives them hope. They look forward to coming to school, and keep going; it is also a beautiful way of letting children be and also reminding ourselves that people can be talented in different areas. But the problem for me (personally) in the movie was when the child had to be a 'winner'!

Teachers must doubtless be using various strategies to help children learn: using activity-based learning to involve children, discussions to encourage questioning, TLMs to make learning interesting, and worksheets...I can go on with the list of things teachers do and the hard work they put in to help children learn.

And yet, we cannot deny the fact that every classroom will have children who are struggling to learn, not able to focus, are restless, have behaviour issues, do not do homework or complete the task on hand etc. There may be many reasons for such issues

in a classroom – learning problems (like dyslexia etc), special needs, first-generation learners, or emotional problems. I am going to skip the category of special needs here and, instead, look at issues related to children with behavioural problems and first-generation learners.

The issues could be many: aggression, violence, tantrums, defiance, avoidance or complaints of being tired, sleepy, lethargic and so on. Many a time, such behaviours may be a manifestation of an inner disturbance in the child. Children who are emotionally disturbed experience difficulties in adjusting to one or more important aspects of the school environment. They have problems in learning because they are not able to pay attention, have difficulties in forming friendships, may withdraw and stop participating. All children have inherent strengths and are capable of learning, provided the classrooms or school programme offers them a positive climate. The learning space should be supportive, encouraging, safe and caring.

For this to happen, teachers need to be well-prepared. A little care and personal touch to find out the reason behind a child's behaviour can actually go a long way in helping her/him. Making children express their emotions is no easy task as they may not have been taught to express emotions effectively. Teachers can, at such times, model the appropriate or desirable behaviour for the child to learn from. Since expressing emotions takes time and needs practice, a lot also depends on how teachers regulate their own emotions while handling children. Having regular informal conversations with children may help in this regard. Some teachers also play soft and gentle music while children are working, to provide them with a calm and relaxed classroom atmosphere. Some let children draw or colour their emotions, a few others give time out for children to reflect on their behaviour. I think teachers need to choose what works for them based on their style and comfort before they resort to such strategies.

However, it is better to discuss the case with specialists, parents and experts before making any conclusions about a child's issues.

For all that we know, children can, at times, be restless simply because they are bored in class, either because they know more (are familiar) than what is being taught or are not able to relate to what the teacher is teaching. They can also be preoccupied with routine things like a birthday party in the evening, the mother being unwell or some disturbance at home, the day having started on a bad note, not having done the homework, etc. Therefore, they may not be mentally present in class. They could also be first-generation learners who are taking time to settle down into the ways of schooling and learning.

Some strategies that might work

Children who are brighter than others

What is the basis on which we consider someone to be bright? The teacher needs to ensure that the child has done all the class level work that is expected of everyone, only after which can he be given any additional work. Make it challenging for the child by giving him opportunities to approach the same problem (concept) from various angles. For example, in math, if it is about multiplication, teachers generally move on from one digit to two digits to

three and four and so on. Instead, the child can solve 4×25 (by just doing the sum to find the answer with the knowledge of multiplication tables), create his own problems, discover what patterns they find in tables, solve through story sums or word problems, create his own story sums, respond to questions such as, though the answer for 25×4 and 4×25 is same, what is the difference in writing them like that. Teachers can also expose children to different ways of solving sums. For instance, I remember a child adding $40+40$ and then adding the 2 to solve $40+42$. In subtraction, children are taught to count forward, but some children may be comfortable counting backwards – allow for such different methods. These practices provide an opportunity for the child to widen his scope of thinking, work on the same concept without feeling the burden of going through it mechanically, by doing more of the same kind in the name of practice. This will also keep the child engaged. All of this, of course, requires planning on the teacher's part.

Children who get bored easily

What about a child who is bored because he is not able to relate to what is being taught? Teachers need

Chapter 4

4

Reproduction in Animals

Synopsis

1. The process of giving birth to their own kind of animals is called reproduction.
2. Animals reproduce mainly in two ways : giving birth to young ones like themselves and laying eggs.
3. The animals which reproduce by giving birth to young ones of their own kind are called mammals. Human beings, cows, lions, etc., are some examples of mammals.
4. Mammals have hair which keep them warm.
5. Mammals take care of their young ones by giving milk, cleaning them and protecting them from enemies.
6. Mammals are warm blooded. They have a constant body temperature.
7. Most mammals live on land. Monkeys and squirrels which live on trees, whales and dolphins which live in water are also mammals.
8. Birds lay eggs and keep them warm under their feathers. After some days, eggs hatch and young ones come out.
9. Eggs are either oval shaped or round shaped with a thick outer protective shell which protects the growing

parts inside. Inside the egg, there is a white thick liquid called egg white and a yellow liquid at the centre called egg yolk. Egg white is also called albumen.

10. Fishes lay eggs in water and reptiles like crocodiles, snakes and turtles lays on land.
11. Frogs lay eggs in water which hatch into tadpoles. Tadpoles grow into frogs. They look like fishes.
12. Some insects like grasshopper and cockroach pass through three stages in their life cycle. Eggs laid by cockroach develop into small baby insects called nymphs. These do not exactly like cockroaches. They shed their skin several times to become cockroach. This process is called moulting.
13. Other insects like housefly and butterfly pass through four stages. The young ones hatched from the eggs are called larvae and look like worms.
14. After growing for sometime larva covers itself in a cocoon. This stage is called pupa. Finally pupa bursts and the fully grown insect comes out. Unlike mammals, the babies of the insects are not looked after by their parents.





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to find ways of helping the child connect the concepts to real life or use examples that will help the child connect the new learning to the things around him

– by and large, this is required as a general strategy too. Some children may need it for a longer period of time and teachers need to be aware of this.

9. In the egg stage, energy is obtained from
 (A) the leaves of the plants
 (B) egg yolk present in the egg
 (C) killing other insects
 (D) photosynthesis

10. In the larva stage, energy is obtained from
 (A) egg yolk (B) leaves
 (C) photosynthesis
 (D) soil

11. Which of the following reproduce by laying eggs?
 (A)  (B) 
 Tiger Cat
 (C)  (D) 
 Rat Frog

12. Harika checked the temperature of her sister and made the following observation table

day	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Temperature of her sister	98.0°F	98.5°F	98.0°F	98.0°F	98.0°F	98.0°F	98.0°F

From the above information we can conclude that Harika's sister is a/an
 (A) mammal
 (B) reptile
 (C) insect
 (D) egg

13. Mammals have
 (A) constant body temperature
 (B) changing body temperature
 (C) high temperature in night and low temperature in day
 (D) no temperature

The following diagram represents the life cycle of a frog. Answer the questions 14–17 based on this diagram.

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  graph LR
    Egg --> Tadpole
    Tadpole --> Frog
  
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14. The animals which live both on the land and in the water are called amphibians. Frog is such an animal. Now, where does frog lay eggs?
 (A) Land
 (B) Water
 (C) Both land and water
 (D) Land in summer and water in winter

15. Tadpoles look like
 (A) frogs (B) eggs
 (C) fishes (D) cocoons

16. Tadpoles can move
 (A) only in water
 (B) only on land
 (C) in water as well as on land
 (D) none of the above

17. Which of the following is possessed by a tadpole but not an adult frog?
 (A) Eye (B) Tail
 (C) Kidney (D) Lungs

18. Dolphin is

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Apart from that, it might help if concepts or content are broken down into smaller and manageable chunks. For instance, if the topic is *Reproduction in Animals*, the content can be reproduced for the child, as shown in the pictures. One need not worry about giving answers towards the end. The objective is to make the child learn, so over a period of time (provided the anxiety over giving correct answers is removed in the class), children will learn not to look at the answers first.

Issues faced by first-generation learners

The above strategy should help, to a certain extent, first-generation learners too, though their issues are different. They may experience anxiety for a variety of other reasons – new place, new situation, new people, etc, staying away from home for long, the language barrier. It is quite possible that these children or even others (who are not necessarily first-generation learners) might exhibit some deviant behaviours. Some may withdraw, not respond to the teachers (I had a child in class III who took almost a

year to speak up in class), some may get aggressive, some may become bossy, some may cry for no apparent reason (anxiety over anything new that gets introduced). Like I mentioned earlier, these behaviours could be because of the anxiety that they are possibly going through and a variety of unsettled emotional problems. It is therefore quite important for teachers to establish a rapport with the child (age or class level is no bar – emotional issues can be a problem for any age group – don't we all go through bad days owing to some stressful personal situation?)

Most of the time, the issue teachers face with first-generation learners is that children do not have anyone at home to provide academic support or make them do their homework, the very definition of first-generation learners the first ones to go to school. It is important, then, as teachers to think about the nature of homework in such situations or even the reasons for giving homework. Why keep giving something when it is clear that the

child cannot do it? A lot can be achieved by being a little creative and considerate of children's family conditions. Teachers can effortlessly inculcate other habits in children that pave the way for academic learning – they can schedule after-school hours for the children (literally timetable it as parents may also not have time to spend with their children), develop work habits by setting routines, motivate them to read (it could be labels, sign boards, TV etc), teach time management skills (could be the simplest of things like waking up on time in the morning to getting ready for school).

Once again, I would like to emphasise the fact that these strategies are not only for the lower classes. There are many children who lack such discipline and habits of self-regulation in senior classes too. Teachers need to make that extra effort to explain the kind of work they are giving children. Parents can be requested to stay beside their child when they are doing homework or even just find out from children if they have any work to be completed. Though they may not be able to provide any academic support, the act of being involved in their child's schooling and learning can motivate the child to study. Such involvement and engagement with parents will definitely help and they will start supporting their children. Therefore, the parent-teacher relationship is crucial to this approach. Once parents feel respected and involved, they will also go that extra mile to ensure their child is regular to school, which in itself can be a concern in many cases.

Marks are, of course, an indicator of children's learning and parents also consider marks important. But schools can take initiatives in making learning evidence-based by having meaningful interactions

with parents during PTMs. Teachers can share worksheets, answer sheets and notebooks of children's work with parents and explain to parents their child's work and capacity. Most of the time, this is not considered because parents are not educated and will not understand. I think it is our responsibility as teachers to share children's work and it is the parents' right to know about their ward's performance. The PTMs should not become a complaining session, which is the reason parents avoid PTMs. If we truly believe that 'every child can learn', we need to ensure that we are highlighting the child's strengths as well as the areas of improvement. Some schools screen educational films at PTMs. All these are ways of involving parents in their child's education and not just academics.

All students come to school with diverse needs and abilities, so there is no student who is fundamentally different. Schools also offer remedial classes, extra classes to support such children. Remedial classes will be successful as long as teachers are using different strategies to fill children's learning gaps and are not repeating the same things done in the class. Otherwise, children will find excuses not to attend these classes. The most important aspect here is the community connect: we need to ensure that parents, teachers and the school are on the same side and working for the same purpose and support one another for the wellbeing of the children.

It is up to each one of us as teachers to recognise the needs of the children and provide them a safe and conducive learning environment. It might be good to revisit Chapter 2 of the NCF 2005 document (Learning and Knowledge), to refresh our memories on what learning is all about.

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A Letter Rides on the Train of Subjects...

Chandrika Soni



Every teacher colleague must have experienced that when the boundaries of subjects are removed or blurred, then learning becomes an immensely enjoyable experience. And in any case, young children cannot be contained within these boundaries of subjects. If they so desire, the winds of environment would be found in the music notebook; the song threads in the Hindi notebook, and the four mangoes that disappeared from a basket would be found in the environment notebook. All the subjects are so tightly woven that children do not try to separate them at all. And in that, if a particular topic in two subjects is similar, then a mix-up is inevitable. I had a beautiful experience of that kind in class three, with which I experience a special bond as I go to this class at least two to three times every day, sometimes, as many as four times a day.

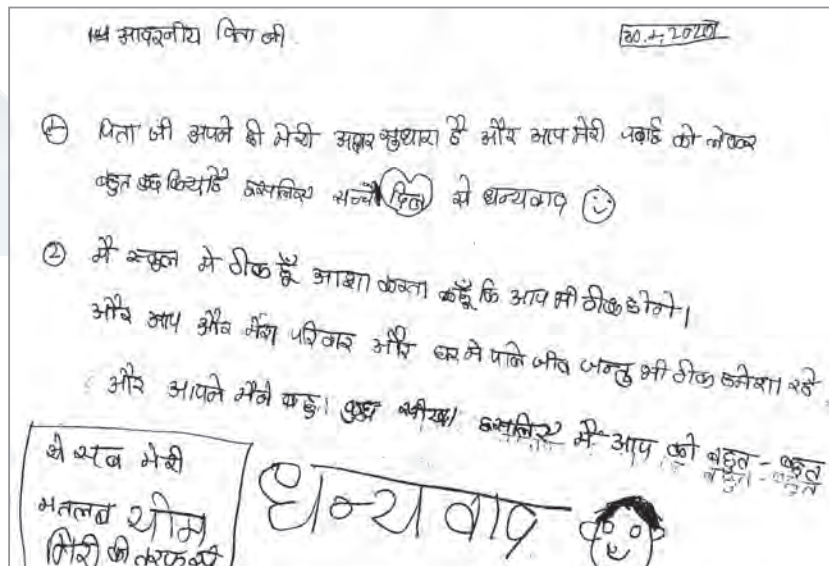
I work with two subjects here – Environmental Studies and Hindi. I am working with Hindi for the first time, and sometimes, the complexities of language entangle me and at other times, it opens new directions for me that also help me in teaching the other subject: Environmental Studies. Once when both subjects had a similar theme, I found a common way to teach both together.

Ghatati Dooriyan (decreasing distances, based on means of communication) - Environmental Studies

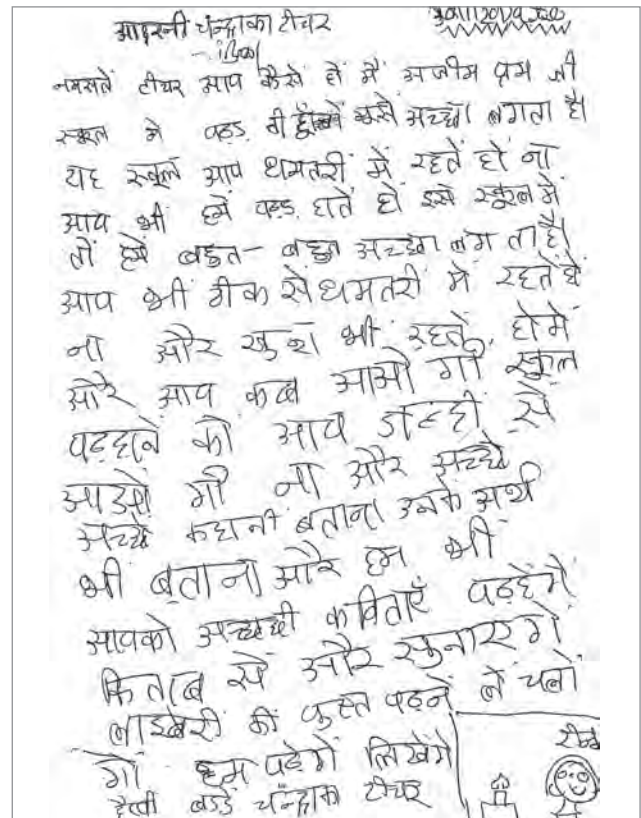
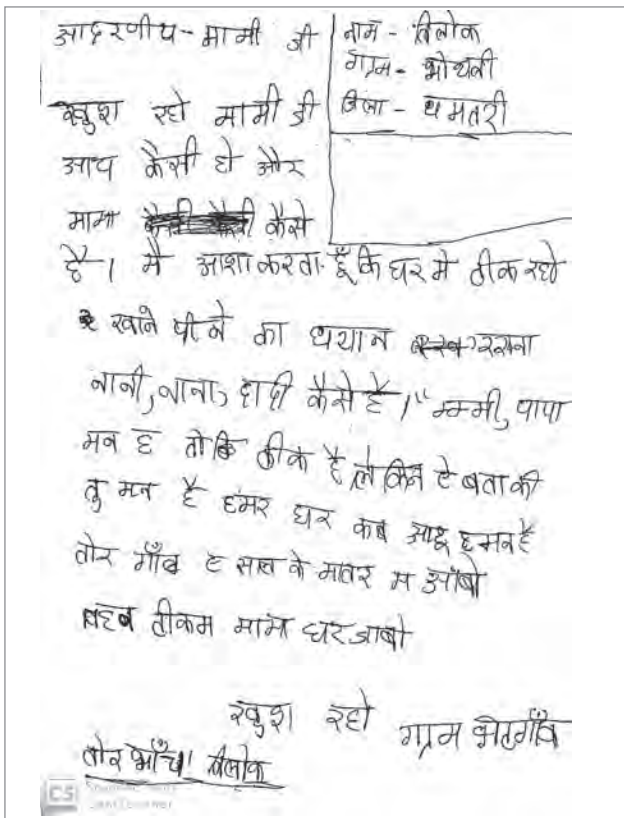
Maitri Bagh (the beginning of letter writing) - Hindi

In Environmental Studies, this topic is always a problem because children, now-a-days, neither write letters themselves nor see anyone in their homes do so. In today's world of mobile communication, letter writing has become extinct, just like the message-bearing pigeons of yore. The letter box is neither seen nor used. Explaining letter-writing and letter-transportation to children is as difficult as making castles in the wind. Children have neither seen an inland letter or a postcard, let alone knowing how these are used. They have some familiarity with the use of envelopes, used either to carry *Rakhis* or wedding invitations. But even so, they are unaware of the process of the transportation of letters.

While I was still wondering how to introduce the process to children, I started the chapter, *Maitri Bagh* in Hindi. This showed me the way. In the chapter, a child's uncle describes *Maitri Bagh*¹ to him in detail in the form of a letter. After reading this chapter, children also wrote some letters to their friends, family members and teachers. Then the question of sending these letters came up.



¹A zoo in Bhilai, Chhattisgarh, India.



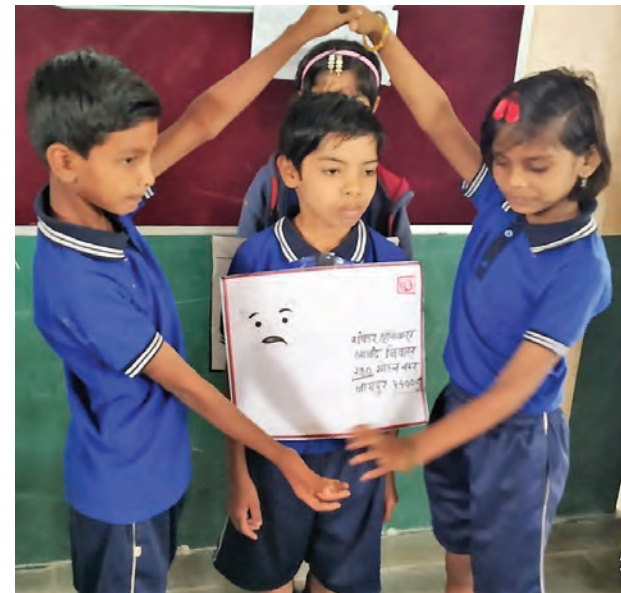
To send a letter, the address has to be written and the letter has to be dropped in a letter box. This process presented difficulties. The picture in the Environmental Studies book is confusing. One cannot make out the process from the pictures. For example, it is not clear whether the person shown sorting letters in the post office is in the city from where the letter is sent or in the city where it is delivered. Role play on this topic is helpful but ensuring that it is carried out correctly, can be challenging.

While struggling with these dilemmas, I was reminded of the book, *Khat* published by Eklavya. It is a very beautiful short story, written by a little girl named, Apoorva to her grandfather (Ajooba) who lives in Nagpur. Apoorva has written this story to wish her grandfather on his birthday. She wants the letter to reach her grandfather on time. On the envelope, she has made a smiley face with two pretty eyes. And inside, the message is decorated with flowers and vines.

While dropping it in the letter box, she says, 'Go to my Daddu, fast!'

In this way, the letter's journey to Nagpur has been beautifully described. When I shared this story with the children, their faces too had a sweet smile. It is then that I thought of the including this in a role play.

We made some lovely characters. Four children became letter boxes, one child became Apoorva and one child her letter. Six other children played the character of other parcels and letters that were going to other places. Two children played the role of postmen. Some children played other officials of post office, who sorted the letters or put stamp on them. Some others became cycle and train bogeys. In this way, at least half of the class could participate in the activity. Other children enjoyed being audience to this process.





How the letter feels scared in the darkness inside the letter-box; how it hides behind the other letters; how he is frightened by the sound of the train; how he befriends the parcel, who is going to Nagpur and how it sleeps the whole night near the big parcel; how it shuts its eyes tight, when it is stamped *thump!* (sound of stamping). Children played each part very well and also learnt about the process of transportation of a letter.

Children's participation was so enchanting that we decided to showcase it in the morning assembly so that others can also enjoy this beautiful presentation and understand this complex process.

Children started preparing for this play with full enthusiasm. We decided to present the play in the next Wednesday assembly.

In this way, a topic of study started its journey from the Hindi textbook and took a turn towards Environmental Sciences and then reached its destination in the morning assembly. We also came to know of some interesting thoughts of the children while making sense of this topic. Some parts of the letters that the children wrote to their parents were extraordinary. We sent those letters to their parents and they too experienced immense happiness.



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Devika and Bala are two among the 33 million children between 3-6 years of age attending about 1.3 million Anganwadi Centres (AWCs) run by Integrated Child Development Services (ICDS) Scheme of the Ministry of Women Development and Child Welfare to provide nutrition, health and early education services. The children learn through play and meaningful activities facilitated by the teacher. Most of the children attending AWCs come from disadvantaged families. Does the learning ability of these children depend on their socio-economic conditions? If they grow up failing to learn to read or write and dropout subsequently, is it due to their individual inadequacies influenced by factors such as poor habits, laziness or the lack of interest in education? Do poverty, caste, religion and other social differences account for their learning abilities?

Case 1

Background

Devika, a healthy child of 3 years, can only mumble words like 'Amma', and a few single syllable sounds and was considered as a non-verbal, unfortunate child. Her parents were worried about her linguistic inability and worshipped godmen and performed many rituals. They were frustrated and exhausted by the efforts that were not yielding any results. Then, the mother, who had lost all hope and was at the verge of giving up, attended 'Early Childhood Care and Education Day' (parent-teacher meeting). In that meeting, the teacher explained the importance of Early Childhood Education (ECE) and the opportunities children should get during the early years for proper development. The mother immediately admitted her into an AWC.

Intervention

Devika initially hesitated but soon started mingling with other children through the free play opportunities that the teacher created. The physical setup of the AWC piqued her curiosity to explore. She explored the play materials and pointing at objects kept mumbling words. The teacher supported her by pronouncing the names of things

that Devika was pointing to. The attention she got from other children of the same age also helped her to learn simple words. Slowly, she was able to form short sentences. Devika's mother ensured the regularity of the child to the centre. The teacher encouraged and made her part of all the activities in the classroom and provided multiple opportunities. This resulted in transforming an introverted and non-participative child into an active and happy child.

Reflection

Creating a fear-free learning environment in the centre enabled Devika to learn through joyful exploration. The teacher created opportunities for learning through conversation, storytelling, singing action songs and play activities, which enriched language development, enabling the child to learn through constant support. The mother played an important role in ensuring that the child was regular and spent time with the child at home reiterating the learning. In one of the parent-teacher meetings, Devika's mother shared her experiences with other parents, reinforcing the importance of early childhood education in the development of children.

Case 2

Background

Bala was 3 years old when he joined the AWC. He was very calm and sat silently in a corner of the centre while other children participated in the activities. He would not talk to anyone. Even if he was asked questions, he would not reply. Bala's parents are separated and he lives with his mother. Being a daily wage labourer, she could not spend much time with him. While his parents were together, almost every day, he witnessed his mother being harassed by his alcohol-addicted father. One day, his father locked Bala and Bala's elder sister in the bathroom and tried to set his mother on fire. Fortunately, his mother escaped, and his father was sent to jail. Since then, Bala stopped talking to anyone except his mother and his sister.

Intervention

The teacher kept talking to him and consciously

involving him by asking him to respond to the conversations, encouraging him to play with the toys. The AWC helper also started sitting with him and encouraged him to participate in the activities with other children. She also drew his attention to his personal hygiene as he was coming to the centre untidily. He started playing with the helper and slowly joined the other children. In a couple of months, he became a good participant in the play activities and active in art activities and in manipulating open-ended materials like blocks and straws.



Reflection

Constant attention, support and encouragement from the teacher and the helper enabled Bala to cope with his distress due to non-conducive home environment. Once Bala felt secure and comfortable to express himself, he started to participate in play and activities with other children. The confidence in the child subsequently created more opportunities for learning and development to happen.

Conclusion

Most of the children attending AWCs are first-generation school goers, whose lives are impeded by socio-cultural practices and financial constraints. Devika and Bala are representative of young children who prove that the learning ability of children does not depend on their socio-economic conditions. A caring and supportive teacher providing a joyful learning environment giving them equal opportunities can make a huge difference in their lives. Capable teachers who understand the connection between experiences and holistic development and are sensitive to the needs of each child are very important in executing a high-quality ECE program.

These teachers by creating a safe and clean environment and maintaining other curricular infrastructure, such as running blackboards, learning corners, circles for seating arrangement,

print-rich environment and so on, give learning opportunities to the children for their overall development within their limited financial constraints. They also create a harmonious relationship between the AWC, parents and community and reciprocal linkages among them to foster optimal development of a child. There is no one-fit approach to make children learn. Every child is unique and each learns in diverse ways, different times and at various places. The teacher needs to create a space which promotes thinking by allowing children to experience, experiment and question things around them and supporting them. Then, every child will learn.

Early Childhood Education Initiative

The Sangareddy Early Childhood Education Initiative focuses on capacity development of Anganwadi teachers to become reflective practitioners with the aim to transform AWCs into vibrant learning centres for the holistic development of 3- to 6-year old children. The intervention is within the existing systemic resources of the ICDS scheme. Teacher capacity development is at the heart of a quality early childhood programme and early learning opportunities available to children. Our experience suggests that such holistic 'in-service capacity development model' can effectively develop teachers' competence to transact developmentally appropriate curriculum for children.

Teachers' in-service capacity development is being carried out through a multi-pronged model for all teachers across the Sangareddy District of Telangana. Insights from our engagement through multiple platforms with the teachers, such as workshops, centre-level engagement, sector-level meetings, project meetings, ECCE days, *bala melas*, seminars, teacher *melas* and magazine, help the sharing and learning of good practices among peers. The experiential approach provides opportunities for hands-on experience to teachers through activities which teachers can do with children for enabling the development of critical life skills.

Factors enabling children's learning within teacher's circle of influence

Some important, basic elements of a good ECE programme that enable learning and development in the children attending AWCs and are within the teacher's control are given here. Using this as a guideline, a teacher will be able to execute the programme effectively.

- Every day, the teacher provides hygienic and

nutritious food and ensures that the children wash their hands before and after food and a minimum of one hour of naptime after lunch.

- Every month, the teacher measures children's growth (height and weight).
- The teacher maintains a first aid kit at the centre and ensures a clean and safe environment in and around the centre.
- The teacher organises a stimulating learning environment as per a thematic timetable and

makes play material accessible to children.

- The teacher records and displays the children's work.
- The teacher treats children with care and uses positive methods of disciplining.
- The teacher encourages social interaction among children during play and mealtime.
- The teacher executes a minimum of three to four hours of ECE programme daily.



Key Teaching Practices leading to a good ECE Programme

Shailaja, a teacher in a small village, allows children free play in learning corners till the majority of the children arrive at the centre. She has arranged different corners in the classroom through which children get the opportunity to explore and experience on their own. Children interacting with each other, cooperating, sharing, working in groups, waiting for their turns etc. thus improving their social competencies. Along with free play, she also provides the opportunity for guided indoor play and outdoor play.

Once all children reach the centre, she makes them sit in a circle and takes the attendance by taking children's signatures on name charts pasted on the wall. Like this, she is able to integrate and provide literacy experiences through different activities. She starts with the conversation followed by story, song and pre-numeracy activities as part of the 'circle time'. As part of the circle time activities, she uses concrete objects and print material to enrich

the opportunities for listening, speaking and paying attention.

Children get access to storybooks in which they do picture reading, pretend reading and so on. Other practices like weather chart, rules chart, display board are enriching children opportunities towards functional print. She provides the opportunity to the children for identifying, understanding different emotions and connecting these with their daily life experience. One of her regular questions to children is, 'how are you feeling today?' Responding to this, each child picks an emotion card and tells the reason for their current emotion. Hands-on experience, thoughtful questions, playfulness, follow-up activities, appropriate demonstration of behaviours, free play sessions, balance between high- and low-intensity activities and free and guided activities are some of her approaches which are implicitly exhibited across all activities in a day.

Based on our experiences, a set of simple but key practices that a teacher should do in an AWC every day are mentioned below. These have a significant effect on children’s development.

PRACTICE	DURATION
Provide opportunities for free and guided play indoor and outdoor.	60 mins
Facilitate meaningful interactions with/among children in circle time.	60 mins through the day
Use events of the daily routine to observe children’s behaviours and guide their social skills.	Ongoing
Provide creative experiences to the children.	20 mins
Facilitate emergent literacy experiences to the children.	30 mins
Engage children in exploration and experimentation with objects to foster pre-numeracy skills.	30 mins



Factors leading to a good ECE programme

An effective, well-designed ECE programme is one delivered by trained and capable teachers, who understand the connection between experiences and holistic development, and are sensitive to the needs of the children. Here are the important factors:

Infrastructure

Young children need a physical environment that is spacious, welcoming and safe for their learning and development. Essential features of an early learning environment should include sufficient floor space, hygienic toilets, running blackboards, learning corners, seating circles, and so on. In addition, children need a plethora of visual, tactile and textual materials for learning and play, both indoor and outdoor.

Sunitha started working as a teacher 8 years back in a small, rented room where she did not have scope for conducting preschool activities. She tried to shift to other places, but people were not willing to rent space for an AWC. When she got to know that the primary school kitchen was not being used, she with the support of villagers, met the head teacher of the school to seek for approval to shift the AWC to the school premises. Few months passed by but there was no reply. The head teacher, meanwhile, was observing the efforts of Sunitha in providing better learning opportunities to the children in her centre. He also was able to see a clear difference in abilities of class I children in his school between the children who had been to

the AWC and those who had not. So, he offered another – better and unused – room in the school for the centre. Within a month Sunitha transformed the room into a vibrant learning

space with a print-rich environment for young children. Her strong desire to shift to a better place for children to do daily activities was fulfilled due to her sustained efforts.



Curriculum

A developmentally appropriate curriculum is necessary for the holistic growth of children. Hands-on experiences through interactive teaching, play-based exercises, outdoor activities and engagement with materials need to be included.

Balamani teacher is providing a range of opportunities for the development of children by using teaching-learning materials (TLMs). She has been using coloured cloth pieces, egg trays, paper glasses to enhance children pre-numeracy abilities such as matching, classification, making patterns. The attention span of children when involving in different activities with the variety of materials has increased which enabled the teacher to develop various concepts in a short period. She was, thus, not constrained by the unavailability of TLMs and created these herself using simple, no-cost and locally available materials to give a hands-on learning experience to the children.



Teachers

Most Anganwadi teachers work under difficult circumstances and strive to do a good job. Teachers are integral to the learning experience and they need our trust and support. A teacher's job needs to be recognised as being as complex as that of a school teacher. Professional qualifications are necessary for new teachers and the existing teachers need a continuing in-service programme for them to become better educators.

Prashanthi teacher runs the AWC in a village that has only houses made of thatched roofs. The best she could rent was a small room made of steel panels with a mud floor. Her interest to learn and develop her AWC made her participate in workshops conducted by the Azim Premji Foundation. She started understanding various components of pre-school education and started implementing her learnings. Within the existing space, she put mats on the floor and covered the sides with colourful print-rich pictures, arranged learning corners and started conducting activities with the children. In a few months, the change became visible to the parents and community members which resulted in an increase in the enrolment. Many teachers who work in similar constraints were inspired by her journey when she presented her story in a district-level seminar.

Family

The family needs to be recognised as an important part of a child's learning and development

ecosystem. It is important to develop harmonious relationships and reciprocal linkages between the AWC, parents and community.

Anitha teacher observed that there were many children in the community who did not attend the AWC. She started inviting parents and community members to the monthly Early Childhood Care and Education Day (parent-teacher meeting) and demonstrated to them all the daily activities that take place in the AWC and the impact of these on a child's development. She also visited the homes of those who did not attend the meetings to explain the importance of pre-school education for their children. It took six months for her to bring a change in how the community viewed the AWC from a 'food serving place' to a 'vibrant learning centre where children develop their abilities'. This helped Anitha teacher in increasing enrolment from 25 to 40.



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**Names have been changed to protect the identities of the children.*

ECE Team (Sangareddy). The Early Childhood Education (ECE) Initiative of the Azim Premji Foundation focuses on capacity development of teachers to become reflective practitioners with the aim to transform Anganwadi Centres into vibrant learning centres for the holistic development of children in the age group of 3-6 years.



26 July 2019

Today's work started with some physical activities. After about ten minutes of activity, we were tired and sat down in a circle. Twenty-five children were present, out of which sixteen were new admissions. I was introduced to some children yesterday, but it was not possible to remember their names in just a day. Today many new faces were also there, so it was necessary to know their names and have their introduction first. I introduced myself by stating my name and told them that they can call me 'Gajendra teacher'. Then I said, 'You know my name but if I want to call you, how shall I call you? So, if you tell me your name, then I can call you by your name'. I said these things very naturally. So many children felt the need to tell their names. I could not believe that on the very first day something like this would happen, I did not even finish my sentence and the children stood up and started telling their names one by one. All these children had come to this school just today. I was quite surprised; it was for the first time in my teaching career that so many children were telling their names by themselves without any coercion.

What was the reason behind such behaviour of children? It is not possible to say for sure. But a possibility is: it depends on our behaviour. If we want the children to be attracted to school, to continue in school and behave according to our expectations, then, our behaviour should also be in line with the expectation of the children. We need to understand that for a child everything is new in a school – the building, other students, teachers, language, school processes and so on. Children thrive when they are given space to share their experiences and language. In order to attract them towards the classroom, we should talk to them in their language, sit near them, laugh with them, and ask them about their problems. It is necessary to make children feel that they are safe in the new place.

Another activity that was done today: children were given a slate for writing. A total of 26 slates

were distributed. The children were asked to keep the slates in one place after completing the writing exercise. The writing practice had taken a little longer causing slight boredom in the children. It was necessary to change the activity to keep them energetic.

I told the children, 'I did not count the slates before distributing them and we should know how many slates there are. So, let us count them'. The slates were in the centre and all of us sat around in a circle. It was decided that they would count the slates as I picked up the slates one by one. The counting started. At times, when the children were counting, I would stop picking up the slates, thinking the children would go on counting. But they were very alert. They either stopped others from counting or asked me to keep the slate aside. Some children were not able to say the numbers in sequence, so there was a difference in the number name and the number. However, children corrected themselves and began counting again. We counted again and again – when we reached number 26, I made up some excuse and had them count again. This happened many times. Today's counting process was a big challenge for many children. They wanted to know the exact number. This activity was very interesting, and all the children were focused on counting. We also counted in English a couple of times.

The highlight of this activity was that the children were busy throughout. Secondly, the TLM used was not a fancy or expensive item. The TLM we use in the classroom should be something that the children can touch, see from far and use on their own. It should be strong and durable, safe for children and easily available in the surroundings.

Our aim here was to count and we wanted the children to learn to count solid objects. The technique of presentation is another important thing while working with children. The teacher can make any ordinary thing extraordinary with his or her language, tone, acting and skill. I too enjoyed counting today along with children.

Diary 29 June 2019

Today's work was carried out according to plan. Through various activities, I made efforts to know each child well so that they feel that at home and safe at school; enjoy various activities, and; know that they are heard and whatever they have learned is important.

Here are the details of the work done today.

I went to class I. Some kids were playing in the classroom. I shook hands with them and wished them 'good morning'. The seating arrangements had to be set right, so I called some children from the other class and with their help spread out the floor mats. After the assembly, children were to be given *chana* (gram) for breakfast. I went to each child and made sure they ate without dropping it on the mat.

We all stood in a circle. The children practised some physical activities – following my command to sit down, stand up, hands up, hands down, turn around etc. The fun part was when a sudden change in the sequence of commands would trick children. They enjoyed a lot and laughed loudly. After this activity, everyone sat in a circle. We sang *Aam ki Tokri*, *Moturam Halwai* and *Gamla* poems with full vigour and action. Later, I asked them to face the board and wrote the following words on the board – *gamla*, *nal*, *rassi*, *machali* and *ghar*. Most of the children were able to read the words because many of them had attended school earlier. However, for some children, these words were totally new. Hence, pictures were drawn, and they were given the practice to say these words and identify them through word pictures.

By now we had spent a lot of time talking and singing and there was a need to change the activity. Children were asked to look at the words and pictures on the board and write them. While observing children's writing, I found that only a few children's writing was clear. I felt that pre-writing practice is required with most of the children. If they know how to hold a pen properly and understand shapes, then, writing would be easier. Presently, there was a great need to improve the way children construct shapes in their writing. So, the practice of writing started through drawing simple pictures on the board and simultaneously, observing children's notebooks. After about an hour, some children wanted to drink water and use the toilet, so they were given a break for five minutes.

Thereafter, our work was focused on mathematics.

We began with counting numbers from one to thirty in chorus and repeated it many times. My aim was that children should remember the order of numbers and those who already know how to count should get more practice. In the meanwhile, we did one more activity. We practised counting with big beads (from *Jodo Gyan* kit). We placed the beads in a heap on the floor and I asked any two children from the group to come together in the front. One child was asked to open both the palms and keep them together and the other child to pick one bead at a time from the floor and keep it on his/her partner's palm. The remaining children, who were watching, were counting the bead as soon as it was placed on the palm. After some consultation, the children were counting correctly. They were counting only after the bead was placed on the palm. All the children were eager to participate in this activity, so they were given the opportunity to come forward in pairs. Today, we practised counting 1 to 10 objects.

After relaxing for a while, we started mathematics again. This time we made an attempt to understand the concepts of *small-big*, *up-down* through the pictures. Most of the children were able to understand big and small, up and down by looking at pictures. They were also able to tell *less* and *more* on the basis of numbers. An activity was carried out to develop the ability of estimation and further clarify the concept of less-more. I took out the slate, children's notebooks, classroom library books, some plastic blocks and all of us sat in a circle. I picked up some object in my hands and asked the children, 'Tell me, which hand has more items'? All the children were answering as they thought right. Sometimes, I picked up the same type of items and at times different types of items. I repeated this activity several times. Meanwhile, I told children how to know which item is more and taught them to pair things and know about more and less. Many children helped with the pairing work.

For the past three days, the children have been given free playtime for about 15 minutes after food. During this time, children play with various play materials (blocks, kitchen sets etc.) individually and in small groups. This is also a part of an important objective as, during this time, children from different villages get introduced to each other and develop friendships. Physical development is strengthened as children run, arrange blocks, rack their brains to create something new, and play different characters while playing with kitchen and

doctor sets. They work in multiple areas which is necessary for all-round development at this age.

There is a child in my class, the youngest of the lot, who is very energetic throughout the day. In my observation, I have found that he does not do any work for more than 20-30 seconds with concentration. He is eager to do different things all the time. He seldom talks; when asked many times, he replies in a few words. I would see him running and scuffling and pushing others. I felt that his concentration should be enhanced, the grip of his hands should be strengthened, he should be able to balance, learn to think seriously and so I thought of an activity for him.

I called him, sat next to him and gave him the same beads that we counted before lunch. There were about 20 beads. I told him that the beads have to be kept on top of each other. I showed him how to do it. He got involved in the work with enthusiasm. His efforts were worth watching. As he arranged the beads one over the other, he was sometimes bending, sometimes reclining, sometimes he sat on his knees, he kept the beads in his hands, sometimes on his legs... but he could barely arrange two to three beads one on top of the other. He struggled

for about 10 minutes. Then, getting frustrated was ready to leave this. So, I gave a second task to him. I told him to string the beads. He started working with the same enthusiasm, Although, this time, the work was easier than before, it wasn't without difficulty. The end of the thread was frayed and would not go into the bead easily. Finally, his hard work paid off and he was successful in stringing the beads. By this time, I too was sweating watching his effort and I breathed a sigh of relief.

After this activity, I heard a poem from each child, wrote the homework in their notebooks according to their interests and abilities. The whole day's activities, jumping and running had exhausted my body and mind. I needed some peace and respite after the class, which is rare to get because we must prepare for the next day. It is very important to make a practical and fruitful plan for successful classroom processes. The love of children and the will power to do something gives us the energy to work and then it becomes easy to bring our heart and mind to work. I also enjoyed my day today. It seems that I am moving slowly towards my goal and I will definitely get success from children's work and love.



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Achieving Literacy Through Joyful Learning

Indira Vijayasimha



In a hard-to-reach corner of Southern Odisha's Rayagada district lies the sleepy village of Kashipur. Aspects of the village are picture-perfect, with gently undulating hills and streams. The hillsides are covered with a chequered quilt of cultivated squares and the observer is struck by the many shades of green that exist in the landscape.

The reality of the peoples' lives here is, however, far from perfect. The hills conceal rich mineral deposits that have brought in mining companies with their noisy machines and gigantic trucks. The largely tribal population faces chronic poverty and is prey to malaria in addition to centuries of exploitation by colonial and post-colonial rulers. Literacy rates are low and about thirty years ago, there were no schools at all. The organisation, *Aragamee*, rooted itself in this village with the objective of working with the communities to ensure their rights and to empower them against exploitation. Much before the government set up schools in these regions, *Aragamee* had started night schools in the hamlets around Kashipur and to this day, young women and men who learnt to read and write in these schools recall the extraordinary excitement of those days. With the government finally taking up the responsibility for educating children, *Aragamee* decided to focus on livelihood and health issues. Sadly, they found that despite the presence of schools, children were dropping out early and girls were the most vulnerable in remaining trapped in intergenerational cycles of low literacy and poverty. About fifteen years back, *Aragamee* started a primary school for girls, called *Mukta Gyana Kutir* (MGK).

The need for innovation

In the *Aragamee* school, as elsewhere, teachers had been teaching in the traditional manner, focusing on letters first and later reading aloud from the textbooks with the children repeating after them. Vidhya Das, Joint Director of *Aragamee* was dismayed by what she saw. 'It was as if the teachers' droning voice made a blanket of sound under which the creative potential of children

was smothered!' she said. She wrote, '...school education, where children are not provided the stimulus and opportunity to use their minds and cognitive abilities in creative and engaging ways, where too much emphasis is given to mechanical memorising, affects children's mental development. It decreases interest and slows down learning, thus, necessitating more than double the time normally required to acquire even the basic literacy skills.' (*Aragamee* Annual Report, 2016-17).

It was this concern that let Vidhya Das to innovate and come up with a different approach to teaching literacy which was then called the *Creative Language Development Effort*, or CLDE. In this approach, the traditional process is abandoned for a more child-centric and whole language approach, whereby phonic comprehension is brought about through known words, objects, proper nouns, playful rhymes and songs which the child can remember. The learning is more organic and so quicker and much less stressful for the child and the teacher.

What is CLDE?

The Creative Language Development Effort (CLDE), based on the model developed in the MGK school, is an attempt to strengthen literacy in state-run schools in tribal districts. The goal is to improve reading and language abilities of first-generation school-goers in the tribal districts of Odisha. Here the community has no history of literacy or school education. Government primary schools in these pockets have poorly qualified and under-motivated teachers, resulting in a majority of students completing elementary school with almost no reading skills. The CLDE approach has several unique features. It seeks to make literacy learning as intuitive as natural language learning by reversing the alphabet-centric method. It equips children to learn the phonetics of reading through exposure and immersion in the written language through meaningful words, sentences, and ideas, beginning with the family and home, familiar objects, rhymes, and stories. Connections

between the sound of the word and the *aksharas* are established by encouraging the child to write. Thus, reading, writing and literacy development go hand-in-hand. The programme is based on a unique constructivist model of literacy and reading development.

Steps of CLDE

CLDE builds on the basic language and learning ability of children. By the time children enter formal schooling at the age of six years, they know at least one language. Research shows that at the age of six a child can use over 2000 words and can understand many more. They can express themselves in complete sentences and can talk about an event or narrate a story. Given that children are actively making sense of their world through spoken words, CLDE focuses on words to begin children's journey into written language. The steps followed are:

- Begin literacy instruction through meaningful words: Rather than begin by memorising the letters of the alphabet, in the CLDE approach children are introduced directly to whole words such as their own names, names of familiar objects, animals and birds. If the word for an object or animal is different in the child's home language, the teacher helps the child understand that there can be two words that mean the same. The child is helped to say the word as it is written while acknowledging that a different word is used by the child in her own language.
- Let children practise writing whole words: As part of becoming familiar with written words, children practise writing words that they have learnt.
- Use games and activities to enhance word recognition: As children begin learning whole words, their word recognition is enhanced through various games and activities such as picture-word matching, filling in the missing letter, word match and bingo games.
- Teach rhymes and songs: Children enjoy singing rhymes and songs and the same songs are presented to them in print so that they can follow along as they sing or recite the rhymes. The same rhyme or song can be translated and sung in different languages - when this is done, children who speak a different home language feel included.
- Introduce storybooks: As the children become familiar with written words through reading and

writing, they are also introduced to storybooks through read-alouds and other book related activities.

- Encourage children to express in writing: Reading and writing go hand in hand in the CLDE approach and children are encouraged to write as they read and also beyond what they read.
- Introduce *akshara* and *maatras* formally, after children have already learnt to read many whole words.

Pedagogy of CLDE

As part of their training, CLDE teachers are helped to develop a conceptual understanding of language and literacy. Literacy means being able to think independently, to make meaning of what one reads and being able to communicate ideas, thoughts or feelings through writing. In the CLDE approach, *meaning making* is given a primary role and decoding is introduced later. Teachers are helped to understand the nature of language as a sound-symbol system. They discuss the way in which children naturally acquire their home language. By observing children, teachers realise the importance of play in their learning. A CLDE teacher is expected to:

- Create a friendly and fear-free atmosphere by not scolding or punishing children.
- Encourage children to speak freely in the language the child is comfortable in. It helps if teachers can speak the child's home language. Teachers are expected to listen carefully to children and communicate with them in a friendly manner and to try and understand the child's language.
- Be familiar with the principles behind the CLDE approach and the supporting books. Use the books according to the guidelines given.
- Teach through play, including learning and reciting of action songs, drawing and colouring, taking the child's finger across the text of these rhymes in imitation of reading (even if the actual ability has not yet developed) and letting children play with picture cards. By using these methods, the teacher can help to acquaint the child with the text and commit it to memory effortlessly. Through play, children not only practice what they know, but they also learn new things. It is now well recognised that play actually facilitates cognitive development.

- To translate poems and songs into the children's home language whenever required and whenever possible. Since tribal Odisha has a number of languages it is not always possible for the teacher to do this.
- Create and use TLMs to support children's learning.
- Develop children's interest in books by using stories, read-alouds, role play, dramatisations and other such activities.
- Have a good rapport with the community around the school.

Supporting material

A workbook-cum-primer *Kau Dake Ka* (the crow says *ka*) has come to be much loved by both children and teachers in the CLDE programme. The basic concepts behind the CLDE approach is explained in the preface. The importance of drawing and colouring, the need for children to copy symbols correctly, the importance of understanding two-dimensional representation and the gradual stages of reading development are also explained. Along with this, the preface helps teachers plan their lessons and offers many suggestions for classroom activities. In addition to *Kau Dake Ka*, the programme has developed several other TLM that teachers can use to enliven their classroom learning.

Is CLDE effective?

A visit to MGK will serve to show how effective this approach is. During one of my early visits to the school, I was impressed by children in class I who were about six months into school for the very first time in their lives. These lively little girls did not hesitate to write each other's names when asked and further, they happily wrote out my name on hearing it. Many of them had picked up books from the library and were able to read out from them! It made me wonder why so many children in other schools were not able to read even after reaching class VII.

When CLDE was being piloted in 18 schools in various tribal districts, the impact was visible. Visitors to these schools would be surrounded by confident and curious children who were quite willing to engage in conversation in contrast to children in other schools who would often run away from visitors or be tongue-tied and silent. Reading levels improved

significantly wherever the CLDE approach was used as a supplement to regular schooling. The improvement was most dramatic in the case of older children who had until then been unable to read even simple words. Iswar Saunta, one of the CLDE project teachers, spoke about the changes he had observed in two children who had been studying at a residential school, but had discontinued. Both of them were unable to read at all when they joined Iswar's school. 'Now, after one year in my class, they are fluent readers and eager learners,' says Iswar. The CLDE pilot project in the 18 schools has come to a close, and one can only hope that the gains in reading and the positive attitude towards schooling that was created will remain with the children.

Meanwhile, the strong foundations in literacy and learning laid at MGK have many unexpected consequences. It is a lower primary school and the girls have to move on to a government school to complete elementary schooling. Only a few are able to continue beyond that. However, the strong educational base built at MGK serves them in other ways. One girl, for example, was able to question her employer when the wages she received were not the wages she was signing for. 'Oh, have you been to school - which one?' she was asked.

Since MGK was primarily set up for Adibasi girls, the neighbouring village of potters did not initially send their girls to the same school. However, on hearing that the Adibasi girls from MGK were learning well in school and that some of them had even managed to get into the Navodaya school, the potters' village also decided to send their girls to MKG. Perhaps good schooling can serve to change age-old mindsets!

As I conclude this article, my mind wanders off to the gentle hills of Kashipur. Every weekday, as the sun warms up the landscape and the cattle move out to graze, the air is suddenly filled with children's laughter as the little girls come laughing and chattering across fields and forests - happy to be at school, happy to read stories, happy to write stories and illustrate them. Just as the air is filled with their voices, so too are the walls of their school brightened by their art and writing. It is truly a remarkable experience to be at MGK and see the children blossoming.

You may like to read more about the teacher training part of CLDE at
http://ncert.nic.in/publication/journals/pdf_files/vtte_aug_2018.pdf (pg47 - 58)

A link to an article about MGK is here:
<https://thewire.in/education/in-odhisa-a-school-quietly-empowers-tribal-girls-with-its-empathetic-vision>



Indira's deepest concerns are about human well-being and the role of education in promoting or harming it. She understands well-being as a web of mutually affirming and sustaining relationships between all participants in an ecosystem - human, non-human and material. Her work as a teacher and teacher educator provoked a deep questioning about the processes of education and led her to start the **Poorna Learning Centre** - an 'alternative' school. Indira taught at the Azim Premji University and retired in January 2020. She continues to be actively engaged with Poorna at present. She has several publications in academic and popular journals. She can be contacted at indira502@gmail.com

Moreover, we must also be aware of and accept India's multilingual reality. Every Indian is a polyglot, with a world of oral utterances. Most children, as they grow and interact with the world around, get exposed to a unique linguistic fluidity in some way or the other. To build a solid foundation for literacy, space for a child's language and orality in the classroom must be created.

Saktibrata Sen and Nidhi Vinayak, Essential Pillars of a Comprehensive Literacy Programme, p 55.



‘Raju hurry up, Rupa is throwing the ball,’ Payal called out to Raju loudly and ran away from the *Pittul*. Raju, Payal, Rupa and some of their friends are playing the game of *Pittul*. They are not able to arrange the *Pittul*. Rupa is repeatedly advising that the heavier stones should be placed at the bottom and the lighter ones on top, but Raju could not do it and got out. At that moment, Payal’s mother called Payal, ‘Come on, it is very late, you have been playing for a long time, come home and study now.’ ‘Ma, it is Sunday today, please let me play,’ Payal pleaded, but her mother did not listen to her and asked all the other children too to go home. Payal went home reluctantly.

Raju, Payal and Rupa study in class I. They enjoy playing. I was watching this from the terrace of my house. This happens in my classroom also. When we ask children to share their experiences of daily life or when we ask them to categorise things into small-big, fat-thin, light-heavy, less-more, slide-roll, then they do it spontaneously. Also, with the help of various teaching aids, they enjoy doing the activities connected with far-near, up-down, in-out, arranging things from top to bottom and bottom to top, to count, match or reduce. When they see the activities of their surroundings connected to the classroom, their interest in learning and understanding mathematics increases. Even before understanding the concept of numbers, this kind of knowledge plays an important role in their understanding of numbers – counting solid objects, arranging or placing them in order and matching. All the things we play with, in our childhood, like pebbles-stones, wood, marbles, balls, etc. help us as friends to learn and understand mathematics in the class.

We use various teaching aids to introduce a new concept in primary classes. To introduce the concept of data representation in class V, we used events from the daily life of children. We made groups and collected data by surveying the number of children present that day in classes I to X and thus understood the primary data. We then presented it in the form of a table, prepared questions based on

it and gave it to them to solve in groups. This was the secondary data.

In class III, we explained Tally Marks and Bar Graph Representation by taking tiles of different colours and shapes. These tiles are made of EVA sheet that sticks to the board with water. All the groups were given different numbers of shapes with various colours and were asked to present it in the form of a table on the board. One group was asked to make a graph while the other was to formulate questions. The children were enjoying so much that they wanted to continue the activity in the next period also. We realised that teaching aids should be interesting as well as accessible to everyone. Every child in our class wanted to do it and there was enough material for all of them, so the class was organised and the topic interesting for the children. The children said that they can also make tally marks for household items. One child said that with the number of cows, goats and chickens he has at home, he can make tables with tally marks. In the next class, children made tables on running board for all the classroom items such as table, chair, board, pin-up board, cupboard, English books, Hindi books, dictionary, bulb, fan etc. and discussed.

We also used balls, marbles and objects of various colours and tried to give ample opportunity to the children who learn slowly. We gave them enough opportunity to touch, handle and work with the material and share their ideas. When we work with them, it is the teaching aids that help us to connect with the class and reach each child.

We measured the table, board, playground, kabaddi ground, notebook and pencil using non-standard units like span, steps, hands, rope, pencil, wood etc. and arrived at standard units like millimetres, centimetres, meters and kilometres with the help of these teaching aids. We understood the perimeter and the area by making different shapes with ropes, spokes, tiles etc. Children also understood that we can find the perimeter and area of a closed shape only through this activity. The children

made a triangle, rectangle, pentagon, hexagon and octagon with the help of a rope. They made a circle with the rope and understood its various parts such as radius, diameter, circumference, centre, chord. They could also explain the difference between a segment and a sector. How many radii can be drawn in a circle? When we asked this, the children replied quickly, 'Many! The whole circle will be filled. We cannot even count the number of radii that we can draw.' We believe that when children themselves formulate a definition, the understanding stays with them forever.

We gave 2D and 3D shapes to children to understand the difference between them. We also allowed them to open 3D shapes to see the net of how it was made. The children enjoyed this activity very much. At first, they could not tell how many faces there were in the cube, cuboid. But after opening the 3D shape, they were able to tell it easily by looking at the net. We believe that every child can learn provided she or he gets the opportunity. Some children may be slow in learning, but they also learn as per their understanding. When children start with concrete (tangible) things in primary classes, they find it easy to understand and they are able to relate it to their daily lives. Then gradually they start thinking and working in abstraction without the help of teaching aids and also enjoy it.



In the *Bal Shodh Mela*, we researched about teaching aids with six friends (we consider children as our friends) of class IV and one from class VI, who joined us voluntarily. Through this research, we wanted to understand how all the teaching aids related to mathematics are used in the classroom or school and how the related mathematical concept is explained with their help. The reasons for this research were:

1. During the fellowship programme, when I used to go to government schools, I would see that the school/classroom had many teaching aids

provided by government or other educational institutions but teachers and children did not know how to use them and they lay in some corner gathering dust.

2. The friends from class IV we selected were the ones who needed special attention in the class. We took them in our group because they did not want to do anything in class. We gave them the opportunity to use the teaching aids and learn and understand the related mathematical concepts. We also motivated them to speak and answer the questions of the audience at the *Bal Shodh Mela* to boost their confidence and participation in the classroom.
3. Most parents complain that teaching aids that teachers use in the classroom are not available at home, so how can they help their children? But in and around the house there are many things that can be used as teaching aids such as rolling pins, stools, ropes, mirrors, nails, pebbles, wood, gram and wheat grains, leaves and so on. We told them how they can help children by using these. After the *Bal Shodh Mela*, parents gave the feedback that they have now understood how to help their children at home. They can teach their children addition and subtraction, work on comparison, give them practice which plays an important role in increasing mathematical ability.



In our experience so far, we have understood that teaching aids play an important role in learning and understanding any concept if these are accessible to children and easy to use. Despite all this, some children still face challenges while learning and understanding in the class. Some of them do not practice and are not at the class level. Nevertheless, we are working with them. We are trying our best to develop every possible understanding without losing patience. At times, the reaction of some parents is not positive, they want the child to mug up things and feel there is no need to work so hard

with them. They are also of the view that children should be beaten for not working. But we constantly talk to them about this and tell them that when we work with children on understanding, they

will be able to connect things with daily life and understand. A school will become a better place only when teachers, parents and children work together on learning and understanding.



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Munshilal Barse has been working as a teacher since February 2012 at the Azim Premji School, Dhamtari. He has a Bachelor's degree in Arts and a Master's degree in Hindi and Sociology. As a teacher, his interest lies in working with children to explore the processes of learning language and mathematics in primary classes. He can be contacted at munshi.barse@azimpremjifoundation.org.

Every child is unique, and each learns in diverse ways, different times and at various places. The teacher needs to create a space which promotes thinking by allowing children to experience, experiment and question things around them and supporting them. Then, every child will learn.

ECE Team, Children Learn in Diverse Ways, p 25.



In today's scenario, it is quite a common phenomenon that the children are facing difficulty in developing their understanding of language and most teachers express this often. There are several stages in the language teaching process that I understood after teaching in class. One can find evidence of these processes in Krishna Kumar's book titled *The Child's Language and The Teacher*. The National Curriculum Framework (NCF, 2005) also advocates that school knowledge needs to be connected with the environment of children. When this is done and enough opportunities for thinking and reasoning are given, children start learning.

Generally speaking, when children enter class III, they already have a rich knowledge of their mother tongue along with the words and sentences that express their feelings. They can understand and speak about their needs very well. They are well acquainted with the methods of persuading their elders at home even though no one teaches them this vocabulary. Children learn all these things themselves by observing the environment, conversations and opportunities at home. They very well know how and when to convince elders just by looking at their facial expressions. They also know whether they should speak at a particular time or not and when they will be heard.

At home, they get opportunities to speak and repeat words and sentences frequently and in such an environment, they learn to use words, make sentences and speak on their own. Language is rule-governed and has its own ways. Children use them well. If they have a rich environment at home, they learn to speak and read the home language well. If an ambience of learning the language is created in the school and children are given a rich environment, then they develop the ability to read and write.

In the light of the NCF 2005, textbooks for classes I to XII have been developed in such a way that children can acquire the required knowledge with understanding rather than rote learning. At the same time, they can use their book knowledge to be in harmony with different circumstances of

society and thus carry out the important role of nation-building. The NCF 2005 suggests that the school life of children should be connected with their life outside, which will enable us to go a long way towards the child-centred system described in the National Education Policy (NEP,1986), after which came *Operation Blackboard*, in which the focus was on providing educational resources to children in primary schools and preparation of teachers, etc. For this, a three-foot-long black strip was put on a wall in classrooms as a blackboard for the children to draw and do their work.

I have adopted this method from class I to teach language. I use local words or pick up the names of fruits, trees, vegetables from the children's household, environment or context. The children are familiar with them. Then, I draw their pictures on the blackboard. Children see the picture, recognize it, and speak one or two sentences about them. They draw pictures and try to write names in their notebooks. When these words are repeated again and again, they learn to write. I continue with this process and the children start feeling comfortable with reading and drawing.

The journey goes on; sometimes I begin with names and at other times, with short poems. Children learn poetry with short and simple words quickly, for example, this poem of four lines:

*Maza aa gayaa khel mein,
Bhalu bhaga rail mein,
Hans kar bola achcha tata,
Main kar aaun sair sapata.*

Children say rhyming words through this poem and memorise it easily. In this way, the ability to listen, speak and do activities can be developed through small poems. When I asked the names of the animals, the children told many names of domestic and wild animals. When I talked about these animals and asked a few related questions, only a couple of children could not answer, the others could say something or the other. For example: the tiger lives in the forest, the cow lives at home. When I asked them to write the name of an animal and write something about it, the children wrote

short sentences. They do commit a few mistakes with *matras*, but I do not stop them from writing. Even then children make mistakes while writing in a hurry.

Other activities

Children are curious and are very keen to learn at this age. They want to write somewhere other than their notebooks. So, I did the following with them:

Conversations related to context

This experience is with children in class III. First, I talked to them on the basis of their context. I also made some pictures related to the context in the class. Those pictures were discussed with the children and the children shared their views openly. During the conversation, it was seen that when we talk about the things related to familiar contexts or events surrounding them, they talk freely.

Poems and stories

Children were asked to memorise short poems in classes I and II. Children love poems and memorise them very quickly. They keep humming and repeating these poems. I selected some stories, mainly from *Panchatantra*, *Folk Tales*, *Lalu aur Piloo*, *Stories of Gijubhai*, *Kajari Gaay* and the *Barkha* series. I noticed that after listening to a story, children start telling similar stories of their own. At this stage, the teacher has to be patient

in understanding the children. After discussing the stories, children are encouraged to draw or write something based on their experience. With this encouragement, children get a good start to writing.

Pictures

In order to create an attractive environment in the classroom, I draw the pictures of fruits and vegetables on the blackboard and when the children are asked to draw, they draw the picture of their choice first. This activity helps children recognise words and they start speaking about them and expressing their views. They share their likes and dislikes. The practice of drawing pictures also enhances children's handwriting and writing skills.

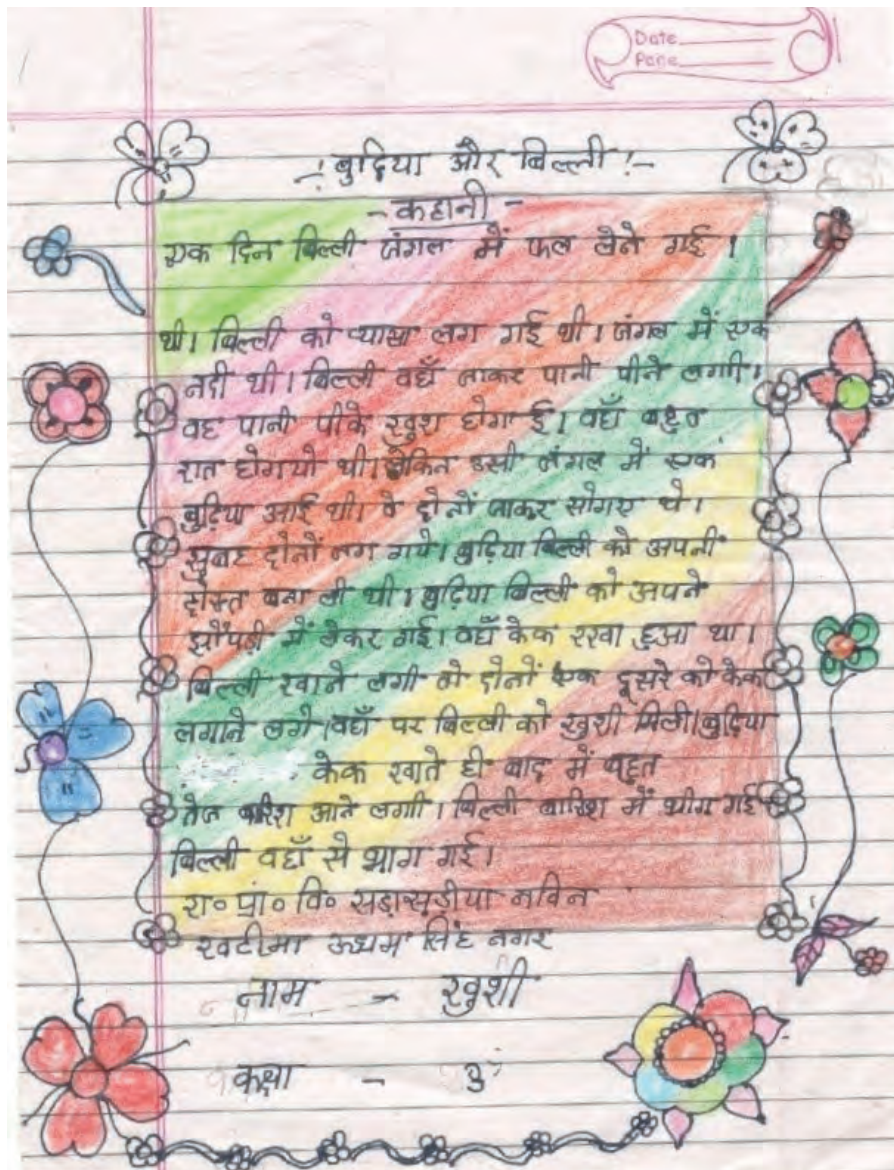
Children's literature

The fourth stage is children's literature which has special importance in learning to read and write. I have used it extensively in my teaching. I gave a lot of opportunities to children to read. Books from *Barkha* series match the children's levels and help them in learning. Children of class III of my school are living examples of this. They read more books from *Barkha* series that have short stories. There is a repetition of names and words, so children learn fast.



Story creation

While working on story creation, I have found that reading children's literature not only creates interest in reading but also develops liking for writing. Children try to create a new story, based on what they have read and their own experiences. They combine both and come up with a new story.



Today I am proud to say that the results of the efforts that I have put in to teach children for the last two years is in front of me in a meaningful way. Children not only make their own sentences and write on a topic; they can also write an original short story. Apart from this, they also do the exercises from the textbook well.

When asked to write their thoughts on a story, many children wrote beautiful stories. The speciality of this exercise was that the children were also assessing themselves. They were laughing while listening to each other's stories and were also putting forth their points of view. When I taught

the lesson *Kab Aun* in the class III textbook titled *Rimjhim*, children asked many questions and after deliberations, they could very easily make up other titles for the lesson. All the children came up with different titles. The children have very sharp thinking power. One child said that the title of the lesson was *Dukandar aur Seth*, the second one said it may be *Murkh Seth*, while other children felt that it could be *Jaisi karni vaisi bharni*, *Jaise ko taisa*. Whether they understood the objective of the lesson or not, they were able to practice the lesson and the activities very well and were ready to move forward by building on their experience.

Objectives of language teaching

Language is not only a medium of communication, it also helps in thinking, understanding and expressing oneself. According to me, some of the points of teaching language are to:

- Share thoughts
- Make the school environment comfortable
- Create a sense of belonging and diligence
- Expand knowledge by connecting mother tongue with regional language
- Create opportunities to express oneself
- Listen to children
- Develop the habit of reading with comprehension
- Promote knowledge, based on references and images available in the environment and to be able to infer
- Teach by connecting school knowledge with external knowledge

- Be able to relate one's experience with poetry and story
- Be able to feel free to express one's ideas and relate the story to one's environment and experience
- Develop linguistic skills
- Nurture the habit of self-study and self-writing
- Boost confidence
- Understand the subject matter and write well
- Develop a sense of aesthetics, imagination and creativity

As a teacher, it is my duty to enhance the knowledge that children already have. In order to enrich the language, develop the ability to reason, express, analyse, imagine and so on, I need to constantly develop my personality and myself. The teacher has an important role to play in the development of children, but along with that the support of the parents is also necessary.

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Children who Struggle with Reading

Kamlesh Chandra Joshi



In school, learning to read is considered to be foundational for the learning of all the other subjects. It is often seen that some children reach upper primary classes without mastering the skill of reading and as a result, they lag behind. During school visits, this comes up as a concern from teachers that the children are unable to read, 'Please tell us what can be done?' Teachers want a strategy which would enable children to read fast. In reality, this requires a well-meditated plan, time and consistent efforts.

In this context, last year, we got an opportunity to support teachers in working with a group of children who were struggling in reading in an upper primary school. This group had many children who had already reached class VI and VII but were struggling with the basic aspects of reading. Two of them were especially behind. They could not even identify alphabets and *matras*. Of them, the girl did not even speak and was also not regular in school. She used to copy a chapter from her textbook and considered that equivalent to studying or schoolwork. But she was unable to read words from the book and was not able to identify *varna* and *matra* properly. The other child was only familiar with his name and the names of his family members; he too was not familiar with *varna* and *matra*. This child also faced the additional difficulty

of forgetting whatever was taught to him by the next day. In this manner, both these children were really struggling with reading. Other children were at different levels.

We prepared a comprehensive plan of working with them. It was decided that apart from learning *varna* and *matra*, the children would also be exposed to some small books of children's literature, which would be read out to them and there would be some discussion around them. These books would also be used to practice identification of words, *varna* and *matra*. For this, we found the NCERT published *Barkha* series and similar children's literature to be appropriate, as these relate to the everyday life experiences of the children. These books were read aloud to the children and then there were discussions around the books where the children brought forward their experiences. Stories and poems were written on the blackboard and children were asked to read them. This was used to practice word and *matra* identification. From the words they could identify, they were asked to make similar sounding words, like *Choti* and *Moti* from *Roti*. Along with this, they were asked to write sentences, record their experiences or think and write what they wanted to.



In this process, children took a bit more time to learn words and *matras* but they have now started reading. They are at the next level. There is hope that in some time, they would start reading fluently. Similarly, the other children of this group too, who as of now, read haltingly, would learn to read with the help of children's literature and their reading speed would also improve. Along with this, they are also practising writing. Now, it seems that all these children would join the mainstream of the class and would be able to learn other subjects also.

While working with these children who were struggling with reading, we have understood that in our educational system, there are many such children who lag behind in the areas of reading and

writing and that is why are left from the mainstream of the system. In many schools, teachers though are able to identify children who struggle with reading, they are unable to plan a systematic intervention for them. As a result, the problem persists. It is essential that we make a systematic plan for work with such children. For this, relevant resource materials are essential, with which the students can connect their life experiences. Such material can then also be used to learn the identification of words and alphabets. In this intervention plan, it is essential to provide the students with meaningful reading experiences. If the work proceeds in this manner, then every child will be able to read and be able to participate in the world of knowledge.



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When a child crosses the threshold of school, she not only brings her bag, slate and chalk, books and notebooks, but also her complete social and cultural background: her full or empty stomach, her curiosities, her fears, hesitations, mother tongue and other facets. And if this child comes from a family that has not previously had a relationship with the structure of education, then the school and the teachers are required to be even more flexible.

Anant Gangola, Education for All, p 6.



When I was in class III, I remember the teacher used to give a list of opposite words telling us their meanings and asking us to memorize all the words. The next day, she would ask whether the students had learnt or not. I recall how difficult it was to learn the words without having any example or image in mind. So, I would like to share one of my classroom experiences in dealing with this topic of opposites. I want to point out that children can learn a language other than their first language or mother tongue even if they have not had the opportunity to learn it earlier. Every child has the capacity to learn if we, the teachers, use their existing knowledge for the new learning.

For example, I was teaching the topic *Opposites* to class II. I started the class by asking 'What do you mean by opposites?' The children said they did not know. I gave an example of *big* and *small* by showing a picture of an elephant and a mouse. I asked them if they looked the same size. The children said, 'No, elephant *bada hai aur* mouse *chota*.'

I said 'Yes, elephant is bada, big and the mouse is chota, or small. Can you tell me some other big and small things you know? They said cow - dog, dog - cat, horse - dog, etc.

I then explained tall and short with a picture of a coconut tree and a rose bush and asked the children to give some more examples from their experience. The children, then, went on to identify their tall and short classmates and teachers to understand the concepts of tall and short.

When I entered the class the next day, the children gave many other examples of big-small and tall-short, such as father and mother, teacher and I, for tall and short; and room and doll, school building and toys for big-small. I realised that the words I had told them yesterday made them think about finding more such examples. We continued with *hard* and *soft* (cotton and wood). The children came, touched the cotton and said, soft means *Mulayam*. Then the children came up with many examples such as chalk and duster. They said, 'duster is hard; chalk is soft.'

We continued this activity in smaller groups and my observation is that even the children who were usually not active in class seemed to be excited to put down their words on the given sheet and try hard to give their best. Excellent examples came from them. It also made the children's understanding of the concept so strong that it remained in their memory.

Those children are now in class III and they still remember the opposites so well that whenever I ask them, they give correct answers without having to think.

So, I feel that whichever topic we are dealing with, especially topics for which conceptual understanding is required, we should involve the students so that they take deep interest and 'mugging' stops but a deeper understanding of concepts follows.



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More often than not, in the school set up, it is the *product* that gets rewarded instead of the *process*. The final assessment paper becomes a statement of *capability* instead of being a statement of *progress*. What is happening wrongly influences, and sometimes overshadows, what can. If a child is not reading, we say that the child cannot read. Most times, this inaccurate conclusion stems from a belief that a parent or educator might hold about the idea of capability. The belief might be that some children cannot learn, or some children cannot learn a particular subject, or in a particular way or that some children just do not want to learn.

I did not hold any such belief. At least, I thought I did not. And, when I pursued an MA in Education from the Azim Premji University, whatever beliefs relating to children's inability to learn I might have had were also questioned constantly. What I gained from the two years of studying various perspectives on Child Development is that learning to teach is gaining perception of why children do not learn or learn to fail. But nothing led me to believe that children cannot learn.

However, even well-intentioned stakeholders with a firm belief that every child can learn might find it difficult to translate this belief into practice. Sometimes, we do not have the adequate tools to turn the *cannot* into the *can*. Sometimes we might lack sufficient insight into the context of the child and thus not be able to reach the root cause of why the child is not learning and, mistakenly, conclude that the child cannot learn.

In this article, I wish to revisit some of the practices I tried to incorporate in my classroom as I worked with children in and outside of school settings, to ensure that every child is included in the learning process in a way that every child can learn.

Grouping and differentiated learning

Grouping children in different and creative ways works very well to counter the effects of a one-style-fits-all approach which may put certain children at a disadvantage. While assigning groups, I would also provide options for different kinds of engagement within each group.

During one such endeavour, children of class IV in a school in Tamil Nadu wrote poems on food and

nutrition to display in the school canteen. They worked in groups and within a group, one member would think of ideas, another could draw, a third would create the poem and one would write it down. The tasks of each would rotate for one activity to another, say, writing welcome messages for the entrance. Through this process, by the end of the term, all children had written a poem, either for the school canteen, the garden, the entrance or the classroom.

In class VI, we made an *All about the Solar System* book. Each child could choose the kind of writing they wanted to engage with. Some children chose to write a factual piece, some a narrative, some wrote an imaginative story, one child wrote the introduction, some children who were absolutely refusing to write, labelled pictures and illustrated the book, while one of them wrote the title and the summary. In this way, every child was involved in the learning process and worked on some writing skills at his/her own level. But having one end-product, which was jointly created, made sure that every child was part of the learning process and believed that he/she not only *could*, but *did*, learn in a visible way.

Flexible seating arrangements

Sometimes just changing the seating arrangement of the classroom enables a facilitator to ensure that every child is learning. I especially like the use of a circular seating style as it instantly allows all children to not just look at the facilitator but also at each other. This simple act of looking at one another goes a long way in enabling inclusion and participation. I have also tried huddled seating for storytelling. Huddling gives children a feeling that they are part of some important, secret activity and this usually encourages the 'disrupters', or ones who would wander off, to also join in. I have also found that huddling creates a sense of ownership and team spirit, which enables children with low motivation levels to take an active part in the process of learning.

Apart from what it does for participation, I found that changing the seating arrangements helped me escape patterns and labels that might have formed during the classes. Dissociating children from their fixed places and patterns made me see them in a

completely new light. I feel like this broke the *pre-emptive chain*. Surprisingly, it also broke boundaries for children, especially those of gender and groups, such as the last benchers.

Establishing personal connect with the curriculum

The founder of the school I currently work at recently reminded us that *every child is a context*. While I think that this is completely true, it is also true that the education system cannot account for each and every context. Accounting for even local context poses a huge, unresolved challenge to curriculum and resource creation. In such a case, a system that accounts for each child would be nothing short of the ultimate education fairy-tale!

However, in the day-to-day work of teaching, it does not seem so elusive. While it is still a huge challenge, trying to think of ways in which personal stories, histories, nuances, interests and just about anything can be included in the class goes a long way in making sure that every child is learning. Some anecdotes from my experience of trying to do this, still stay with me.

One of these is from an *edu-drama* class which was conducted outside of the school setting. One child (K) would refuse to take part at all and just stand against the wall.

We built a warmup routine where every child would start with standing against the wall, talk to the wall about his/her day and then come into the circle before we would start class. So, K's behaviour became normal, accepted, shared and also fun. This was step 1. The second part that made this work was that I did not force him or shame him, but also did not ignore him or discount him.

Gradually, he saw that he could trust the space and that we were trusting him. He chose to slowly become a part of the main lesson. We eventually stopped the ritual of starting at the wall and replaced it with other strategies/activities.

The other experience was with a child in class VI who refused to take part in the social science class. I started talking to him after class about his interests and his life. I got to know that he likes collecting stones. So, we started talking about the Stone Age

and I asked him to imagine that he is from the Stone Age and we used his stone collection to see what kind of tools could be made with them. This served as an initial factor to motivate him and see how the subject could be connected to his personal life.

However, such an approach is not free from its own problems, one being that a teacher does not usually have the time or space to personally engage with each child and many times, he/she may also lack the flexibility and autonomy required to make such inclusions.

I have found that talking to children during playtime, bus-time, waiting time and getting to know about their life and context whenever one finds the opportunity can guide teaching-practice and even teacher-talk a lot. Even if it is subtle, the references to children's lived realities helps in including them and making them a part of a distanced curriculum. I would use anecdotes and experiences from children's lives to create examples in the class. I also used any details that I could find about the children in Reading Comprehension passages that I created as part of worksheets or even assessments.

What I have reflected upon are just a few practices that I have used and that have worked reasonably well. They do come with their own set of challenges and feasibility problems. But to me, eventually, whether every child can learn or not comes down to whether the adult (parent, teacher, school principal, textbook author or any other stakeholder) in his/her life believes that the child can learn. I do not mean this as a personal or sentimental belief, but as an informed, examined belief in the idea that every child can learn, and that every child can learn everything. What can and does differ is the learning curve, but learning can happen.

As I mentioned, in many ways, the system fails certain children and they do not learn. This failure to learn can easily be equated with an inability to learn. And as long as we can watch out for that misguided conclusion, and truly believe that given the right context, conditions and processes, every child can learn, we will see ways in which we can build our classrooms to ensure that every child does learn.



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Just a Gentle, Affectionate Touch...

Pratibha Katiyar



While returning from school the other day, my mind was so restless that I could not think clearly at all. I thought of sharing my state of great uneasiness with my friends so that I could relax but that also did not happen. So many months have passed by, but the restlessness is still there. In the meantime, some new dimensions have definitely been added to that feeling of disturbance. What happened that day was nothing special, it was like any other day, then why so much disquietude!

That day I was returning from a school where I had gone four or five times before also. Almost all the 22 children of that school were known to me. We knew each other by name. We had become friends... close friends. I used to tell them stories and they would also tell me stories. We used to interact. I spent some time in class V that day. There are nine children in the class. All the children read books from *Potli*, as they only maintain the *Potli* library. They do not just read the stories, but they read them with comprehension and discuss them also.

That day we played a writing game. I asked them to write something about what they liked in the stories they read. My experience is that when children are asked to write on their own, they like it and especially when they know that their writing will not be checked for writing errors. All the children started writing. Then, one by one, they started reading out what they had written. But three children, Bhuvan, Somali and Rudra were not lifting their heads from their notebooks. It appeared they were writing something very seriously. All the children finished reading but these three children still had their heads stuck into their notebooks. I asked lovingly, 'Show me as much as you have written.' Then the child sitting near them said, 'Madam, they do not know how to write.' The child who said this, had a mild expression of ridicule on his face while these three children hid their faces in their notebooks. I looked at the teacher, who simply repeated, 'Yes, they do not know.' Such ease and that expression of ridicule were enough to make me restless. But more than that, I was worried about how those children must be feeling. I wanted the children to

feel easy, so I said, 'It doesn't matter if you cannot write, tell me orally, how did you like the story you read.' The children stood up but said nothing. They each had a book in their hand but were silent. After a while, Bhuvan said, 'Madam, we don't know how to read'.

It was beyond my comprehension that these children could not even write their names and read the title of the book. Even though during my last five school visits, I found these children to be very active and eager to learn. They would participate in every activity, especially Bhuvan. He is the class monitor, as well. I had also seen him reading books and once he told the whole story turning the pages of the book. I asked him, 'The other day you were telling the story from the book, is it not?' Bhuvan said in a very relaxed tone, 'I listen to the children who read and can make out what is written on which page and where...so.' Now Bhuvan was smiling. It seemed as if he, the other two children, the rest of the class and the teachers have accepted that these three cannot learn to read and write. The teacher was of the opinion that 'some children just cannot learn and these three are such children. It is not a must that all the children should learn, is it not?' I do not know whether she was saying this to me or to herself, but I was disturbed with the thought that here is a child who by observing his friend reading could understand what is written on which page, then why is he not able to read and write himself. Also, these children are not the ones who absent themselves often from school. Bhuvan's big eyes, his smile and his confident statement that, 'Madam, we don't know how to read, we don't know how to write,' deeply hurt me and was eating away at my soul. The school system had convinced him that some children are not able to learn, and he is one among them.

Even after so many months, Bhuvan's eyes are in front of me as I write all this. They are the eyes of every such child who is not able to read and write, who is travelling in a separate compartment in the train of education and will

get down anywhere anytime. Some may leave school after class III, some after class IV or after class V. The system is also not bothered about their dropping out because these children diminish or harm the data. Bhuvan was enrolled in this very school in class I. Today, he is going to pass out from class V from the same school without being able to read and write. Other than reading and writing, Bhuvan is good in calculations, does everything properly and participates in drama, poetry, storytelling and more.

I have a strange mind that takes me close to people who are (so-called) losers, backward or marginalised. What I did, how much have I been able to do and how Bhuvan has started writing his and his friends' names now – it is meaningless to talk about this journey because the question is much bigger than this. At this juncture, I remember a similar experience narrated by a friend from Rajasthan. The child's name was Dilkhush. He was so mischievous that he would not allow anyone to read or write in class, scatter all the stuff, and quarrel with everyone and did not study at all. If the teacher called his parents to talk to them, they would start beating him saying that he does the same at home. Later, a friend from the Foundation¹ worked with him for a few months and found that the child's brain is very sharp, and his knowledge of mathematics is unmatched. I also remembered a girl from Almora who used to go around holding the saree of Neeru Madam and did not talk to anyone. She too was not interested in reading and writing. I remembered another child from Dineshpur, whose coming to school was like spoiling the system. All he did was to quarrel and abuse. He neither studied nor wanted to study, so he used to tear the notebooks of other children or hide their pencils. Later, the teacher found that the child was not getting enough food, neither at home nor at school. His appetite was more than other children, but he was getting the same quantity of food as the others. Like this, one after another, many examples came to my mind. A girl who was short-sighted and had lost her mother, a child whose father used to drink and beat her mother every day or the one whose brother tore her books.

All these children were not able to learn in spite of going to school. The problem was that the system had assumed that there are some children who are not able to learn at all. Or there is an acute shortage of teaching staff in schools and circumstances that make it difficult to even think about working with these children individually. These arguments may be correct, perhaps they are true also, we may also be satisfied with the learning of seventy or eighty percent children recorded in the statistic, but the eyes of children, who came to school with a desire to learn, will keep on following us.

Now one understands how important it is for the system to be sensitive to children who come to government schools and their environment. Any kind of learning starts at the same point of sensitivity where the desire to learn and love to teach come together. What my colleague once told me about any kind of teaching and learning is like a mantra to me which goes like this - first of all, put your hands on the head of the children gently and lovingly, look into their eyes and see how many dreams are there, befriend them and then reading and writing will happen automatically. I think that such a large system of education is not going to work through such emotional things, but then, I also see that there is ample space for this sensitivity in our educational documents. Otherwise, why would they talk of equitable education for all, child-centred education based on a child's needs and participation of every child in the learning process? Whether it is the National Education Policy, National Curriculum Framework 2005 or National Curriculum for Elementary and Secondary Education, all of them recommend this. More recently, the National Curriculum Framework (NCF) of 2005 has provided a comprehensive approach, incorporating ways to provide quality inclusive education to all children. It clarifies that teachers need to do the following:

- To be sensitive to the individual needs of every child
- To provide child-centred, socially relevant and equitable teaching/learning processes
- To understand the diversity of their social and cultural contexts

That is to say, it is not just about being emotional, it is about understanding the core idea that these things should not just get recorded in the

¹Azim Premji Foundation

documents but should be connected with the life of every child in the classroom with sensitivity. Without understanding children, their needs and their surroundings and without having a sense of respect for them, it is difficult to implement these. So, when a teacher says that the parents of certain children do not pay attention to them, then I fall in love with 'those children'. And I tell teachers

and colleagues that it is important for everyone to learn because everyone has a right to learn. Just as everyone has a right to life. The pedagogy to begin this process is to be able to form a relationship from the heart with every child who comes into the classroom, to respect them and to be extra vigilant in the processes to make sure that no one is left out.

**Names have been changed to protect the identities of the children.*



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Preparing Educators for Inclusive Classrooms

Rajashree Srinivasan



Although in our country the law provides for access to equal quality education, the reality is replete with examples of uneven access and dismal educational outcomes. There are a large number of children in the system who suffer the consequences of disability, poverty and social exclusion. Academic achievement in the school system has been elusive, especially, for first-generation school-goers. Teachers in these schools have the hardest job of all. They have to ensure that all the academic learning happens within the school, as these children do not receive any academic support at home. The circumstances that the children live in are so fragile that teachers are not sure whether, for familial or cultural or socio-economic reasons, they will turn up at school the next day because their lives are in a constant state of uncertainty and ambiguity. They need teachers and an overall supportive system, that consistently believes that *all children are capable of learning and achievement*. The belief that poverty, caste, religion and other social differences account neither for intelligence nor for inquiry ought to be central to the philosophy and practice of schooling.

The curricular discourses on school education and teacher education in the last decade have focused attention on issues of diversity amongst learners and the need to prepare teachers to enable all children to learn. The sixth chapter in the Draft National Education Policy, 2019 (on *Equitable and Inclusive Education*) outlines its objective as achieving an inclusive and equitable system so that all children have equal opportunities to learn and thrive. To accomplish this, it proposes to make inclusive education integral to pre-service teacher education and in-service professional development. It states:

‘...these programmes will ensure that all teachers are continuously sensitised about different learners and hence, will be able to cater to the educational needs of all learners, particularly from the under-represented groups.’ (p142, Draft NEP).

Research studies focussing on teachers’ perceptions about educating children of the poor show that educators have a view of children as being

cognitively deficient and possessing poor study habits (Batra, 2015). There have also been other field accounts of teachers in the public education system, (Azim Premji University, 2019; Giridhar, 2019), which reflect the lives of teachers who cross the borders of caste, religion, class and other institutional and bureaucratic structures to ensure that children learn and complete their schooling.

Both narratives exist. The critical question is how do we develop an inclusive teacher preparation programme aimed at improving the learning and development of all children? What pedagogic practices would help students bring their beliefs and assumptions to a surface level of awareness?

Learning to teach: pedagogy of teacher education

Learning to teach is a knotty affair. It is the first phase of contact between the student teacher and her prospective profession. The aims of pre-service teacher education include developing content and pedagogical knowledge of the chosen school subject, understanding the backgrounds of the learners and the process of learning, developing social and moral dispositions to work with children and teachers in school contexts and acquiring a preliminary repertoire of approaches towards planning, pedagogy and assessment. Teacher education pedagogy rests on the premise that theory, practice and inquiry are embedded within each other and development of theoretical and practical knowledge is central to a rich conceptualisation of educational practice.

Student teachers enter the programme with a barrage of assumptions and beliefs about the backgrounds of their learners, their childhood experiences and learning. They need to be given spaces to express and reflect upon their assumptions. Assumptions shape one’s practice. Construction of new knowledge begins by examining preconceptions. Feiman-Nemser & Buchmann (1986) observe that: ‘In learning to teach, neither first-hand experience nor university instruction can be left to work themselves out by themselves. Without help in examining current beliefs and

assumptions, teacher candidates are likely to maintain conventional beliefs and incorporate new information or puzzling experiences into old frameworks.' (p.255)

The pedagogic approaches outlined here emerge from my experiences of teaching a course on *Child Development and Learning*, where every attempt is made to challenge the prior assumptions about childhood, children, learning and teaching.

Challenging assumptions through readings and discussions

The article selection for the courses serves as a good source to challenge students to examine their prior assumptions. The phase of reading articles needs to be supported by opportunities to reflect, discuss, and consider alternative viewpoints on childhood, caste, gender, disability, poverty and so on. The first few classes follow very focused discussions about who is a child? What is the meaning of childhood? Is it a unitary concept? Do children experience childhood in similar ways? I do a specific discussion around poverty, childhood and learning. Poverty is only an anchor to spin-off a range of issues around children on streets, in institutionalised homes, in war zones, in hilly areas and so on. Students carry out a *time-line* activity, which instructs them to go back to their childhood days and to think about the factors that shaped their learning.

Students are given full-length articles or edited excerpts from readings, such as Sukhadeo Thorat's *Passage to Adulthood: Perceptions from Below*, Sarada Balagopalan's *Remembering Childhood* on child labour, Singh and Ghai's article on *Notions of Self: Lived realities of Children with Disabilities*. Narratives on themes such as children in conflict zones, children with nutritional problems, children on the streets and so on, are also shared with students.

Texts do not necessarily refer only to print texts. Students view videos on children from different contexts. Students who have read the same articles form a group and are provided discussion questions, which are critical to meaningful conversations. They guide the course of conversations to an extent, leaving enough scope for a free-wheeling discussion. Some examples of such questions are:

How has our society constructed/represented working children/children with disabilities? What is the impact of this construction? What is the place of education in the life of these children? Are there alternative ways to construct their childhood?

Collaborative discussions are followed by a *collective* process, where the entire class comes together and is asked to summarise the readings and share the discussions that happened in their group. Sometimes, they are asked to submit individual write-ups. In-class discussions along with readings can be a very powerful medium to generate self-awareness amongst the students and help students understand the backgrounds of children from marginalised sections.

The student teachers are encouraged to reflect upon their own positions in society vis-à-vis gender, caste, class, linguistic variation, disability and equity and justice. During such collective discussions, it is inevitable that questions about the larger societal process, market phenomenon, politics, human violations, differing ethical positions emerge. The spectrum of responses from students and their alternative views also help to strengthen the teacher educator's experience and qualify her pedagogy. Students realise that there are questions to which there are no straightforward answers. They will need to work hard and delve deeper into the ideas of what childhood is.

Challenging assumptions through field experiences

The Master's in education programme offers a course on *Child Development and Learning*, which has a practicum component in which students visit orphanages, disability centres, juvenile homes, urban slums and other similar institutions. A large number of children in these institutions are from the marginalised sections and those who may be first-generation school-goers. Students play and converse with these children. They understand their everyday life, routines, food habits, games and interest in schooling. Students utilise their understanding of child development and learning theories by analysing these observations.

Listening to the 'voices' of children from the poor socio-economic contexts challenge their long-held beliefs about children and childhood. They begin to introspect and reason. The cognitive and emotional discomfort leads to agreements, disagreements and tensions. Students realise that they need to suspend their beliefs and stereotypes and consider the perspectives of others. The discussions facilitate reconsideration/questioning existing perceptions in the light of their experiences and through a process of refining, qualifying or reviewing and reconstructing experiences, and they generate new knowledge and diverse conceptions. Often,

they write reflective journals. One of the students observed, 'I thought children who stay in the orphanages would look sad. But they aren't. They are good fun and they asked me so many questions, for which I didn't have an answer'.

Students, thus, understand that the circumstances of the poor are not defined by their individual attributes or complacency or ignorance of the parents. In other words, the students are made to the question the dominant deficiency approach that, society at large, has towards the children from the marginalised sections. They also understand that childhood is not only a biological construct but a social construct too.

Many first-generation school-goers, whose lives are impeded by socio-cultural practices and financial constraints, need a caring and supportive adult at school who holds the firm conviction that *all children are capable of learning*. The notion of inclusion as one of the central principles that organise schools, curriculum, pedagogy and assessment needs to be brought to the fore in teacher preparation programmes. Their curriculum needs to provide protracted opportunities for reading, classroom discussions and field experiences.

Pedagogic practices that guide students to make connections between the *field*, *text* and *self* may not only help bring assumptions and preconceptions of the students about childhood, teaching and learning to the level of self-awareness but will also help them to imagine inclusive school environments and classroom practices.

More than a century ago, John Dewey wrote his essay, *The Relation of Theory to Practice in Education*, focussing extensively on teachers' growing knowledge of their students and of their students' thinking. He described this as 'insight into soul-action'—a teacher's ability to attune herself to her students' thought and responses, and recognise 'the attitudes and habits which his [or her] own modes of being, saying, and doing are fostering or discouraging' among students.

It may be pertinent to ask: can teacher educators attempt to engage with their students in ways that align with Dewey's ideas of knowing children? Developing competent and caring teachers for an inclusive society will require us to consider Dewey's proposal and get to soul-action through our pedagogic practices.

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Essential Pillars of a Comprehensive Literacy Programme

Saktibrata Sen and Nidhi Vinayak



Three pillars of literacy

Orality, orthographic expertise¹ and exposure to a variety of texts – together constitute a comprehensive literacy experience for children. These three pillars are neither incremental nor causal in nature. They are, in fact, spirally intertwined and if early readers experience them simultaneously, it helps them to become motivated, independent readers.

Language plays a major role in contributing to a child's efforts at learning to read and is the child's premise for constructing meaning, knowing about the world and negotiating with life experiences. Since language becomes an object of thought for a child, orality becomes a fundamental prerequisite for literacy learning.

Moreover, we must also be aware of and accept *India's multilingual reality*. Every Indian is a polyglot, with a world of oral utterances. Most children, as they grow and interact with the world around, get exposed to a unique linguistic fluidity in some way or the other. To build a solid foundation for literacy, space for child's language and orality in the classroom must be created.

Along with the opportunities for oral language development and orthographic awareness, it is important to expose children to a variety of meaningful texts. Sadly, books are often looked upon as icing on the cake, something 'good to have' rather than 'must-have', to complete the literacy experience for the children. Exposure to a variety of texts is a must, not only for deeper extended comprehension but also for developing fluency.

Three pillars of literacy in classroom practice

These three pillars of literacy need to be well understood, deconstructed and taken into the classroom. To do this, some steps are:

Effective oral language exercises

These encourage children to think critically and build upon the oral resources that children bring

into the classroom; help them to overcome the barrier between the local language and the school language.

- Discussion around a story: Children should be encouraged to engage with a story at all the three stages – before a story is read, while reading and after reading.

Before a story is read, children can be encouraged to predict what the story could be about through picture clues, title of the story etc.

While the story is read, it is helpful to stop at some interesting point and get them to do more predictions by asking them questions like *What do you think is going to happen now?*

After a story is read, children can be asked to retell the story in their own words, think of what the characters felt, expand the story, change an event to rewrite the story etc. Such after-reading activities could also be strengthened through writing tasks.

- Discussion around pictures: Pictures from anywhere, including newspapers, magazines, textbooks etc can be taken to encourage children to think creatively, construct a story, improve vocabulary and engage in active discussions. This can be done by posing some of the following questions during the discussion – What do you think is happening here? Why is this character doing this activity? Where do you think they will go after this? What do you think these two characters are talking about?
- Open discussions: Children love to talk about their daily life experiences, their future, their thoughts etc. Hence, it becomes very important for a teacher to use opportunities for discussion with children, some of which may be theme-based, and some spontaneous. This may include discussions on some local plants, animals, instruments they see around them, what they like to play in the evening, how are certain delicacies prepared etc.

¹Refers to the ability to identify patterns of specific letters as words, eventually leading to word recognition. It is when children gain this orthographic expertise that reading becomes an automatic process.

During discussions, children should be encouraged to use their mother tongue to express themselves freely because it is important that they learn to think critically and articulate their thoughts logically. They find it much easier to do if they have the freedom to do so in their mother tongue.

Literacy in Multilingual India: *Room to Read's* Experiences

Room to Read (RtR) implemented a well-designed multilingual programme in two districts, namely Sirohi in Rajasthan and Barwani in Madhya Pradesh. The process started with a detailed socio-linguistic survey of both the places, followed by an analysis of the findings to inform our practice on the field.

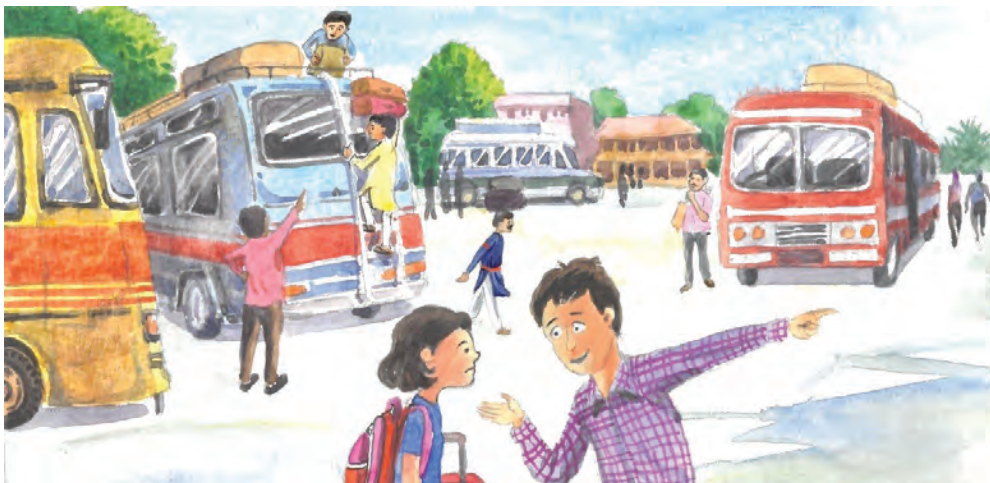
While the broad three pillars of literacy were the cornerstone of the programme, additional focus on the creation of multilingual material and use of the child's language as a resource was additionally focused on. Careful and conscious steps were taken to prevent the stamping out of any 'one' variant language, even though the school system was geared to give space to a dominant language. Stories in local language were written, word lists and word picture cards were created, local words were used for phonological awareness activities and both the teacher and the students were encouraged to use the local language for maximum discussions related to orality or text-based activities. Diversified language experience of the children was used as an essential component of the literacy classroom.

The existence of sound-symbol units is more or less

coherent in relationship in the alpha syllabaries. For instance, in the Devanagari script, the sound of the letter क would always be /क/ for all words like कमल, चकमा, महक etc. However, this is not true for English where the letter 't' may sound differently even in the same word, like 'station' etc.

However, this does not mean that teaching *aksharas* is easy. Even though in *akshara* languages there is a surface pattern, there are more than 400 combinations that children are required to decode almost instantaneously. Also, the visual symbol changes in different contexts. For instance, ई is used both as an *akshara* in ईख and as a vowel in की; the *akshara* त changes when it is written as त्य or as स्त्री. This informs our classroom practice in the following ways:

- Teaching whole units alone does not help. Explicit teaching of *aksharas* must be designed in a way that a child gets to see multiple combinations of *aksharas* in different words in a variety of enriching texts. Hence, a variety of good quality literature is a must for all primary grades.
- *Akshara* teaching should not be done hurriedly, but with a focus on teaching the entire sequence in the initial few months, followed by the teaching of reading words and sentences. Rather, the script should be taught in a planned and structured manner over the initial years of schooling.
- *Aksharas* need not always be taught in the traditional *varnmala* sequence. They can be divided into groups and then decodables (simple texts created using the taught *aksharas*) created to enable children to identify, blend and read words/sentences even when they have not been taught all the letters.



पायल की बुआ मायापुर में रहती हैं। एक दिन पायल उनके पास मायापुर गयी। पायल बस से उतरी तो बुआ नहीं थी। पायल को लगा वो गुम हो गई है और वो रोने लगी। ऐसे में पायल को युगल मिल गया। युगल ने उसे कहा - रो मत, नीलम बुआ पास ही रहती हैं। अहा! युगल बुआ को जानता है, पायल हैरान रह गई।

Five key components of reading

Decodables give a meaningful context and reading practice opportunities to a child, thereby, helping develop fluency with comprehension. Besides, international research shows that focus on five key components helps improve reading in children. Therefore, for effective reading abilities, it becomes important that classroom instruction be so designed that it focuses on all five of these elements in everyday classroom instruction.

1. Phonological awareness

This refers to the knowledge of the sound structure of any spoken word, that is, to understand that the word किताब has three sounds /कि/ /ता/ and /ब/; the first sound of महक is /म/ etc.

2. Phonics

The use of sound-symbol relationships in order to decode words, that is, to understand that sound /क/ is written as 'क'; when we combine the sounds /नी/ /ला/, we get a word that can be written as 'नीला'

3. Vocabulary

It is the knowledge of the word along with its meaning. For instance, the word लाल in

each of the following sentences has different connotations:

यह कपड़ा लाल है।

उसका चेहरा शर्म से लाल हो गया।

माँ ने कहा "यह तो मेरा लाल है!"

A word truly becomes a part of a child's vocabulary only if she can use it independently in multiple contexts.

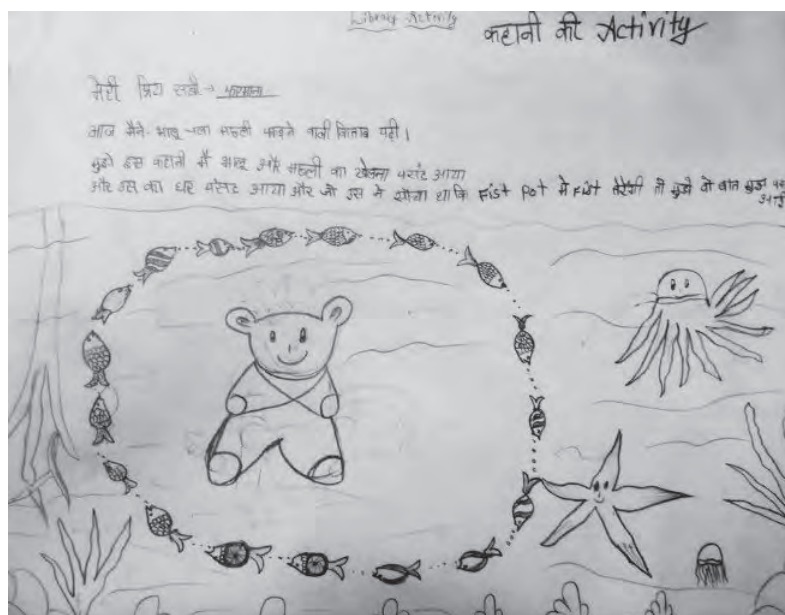
4. Fluency

This is the ability to read quickly and accurately with expressions, that is, to be able to read the sentence कमला बाज़ार गयी है in one go and not by breaking it into its component sounds like क, म, ला = कमला; बा, ज़ा, र = बाज़ार

5. Comprehension

Understanding the given text in order to construct its meaning, that is, to understand nuanced, possible different meanings hidden within the words of the text and to be able to go beyond the text

It must be recognised that reading and writing are connected to each other. Reading improves one's writing while writing reinforces reading. To become independent readers, children should also become independent writers. Hence, classroom activities must be designed in a way that children get opportunities to read a text and express their views both in the oral and written forms, so as to further strengthen their understanding and develop deeper comprehension.



Reading activities

Exposure to appropriate children's literature and development of a culture of reading within the school, home and community are imperative to give children meaning and pleasure in the process of learning to read. This can be done by setting up of school/ classroom libraries and ensuring effective reading activities. Some of the reading activities that can be done in libraries/classrooms are:

- *Read aloud* in which the teacher reads out the story and encourages children in discussion before the story is read, while the story is read and after the story is read.
- *Shared reading* in which the teacher and children sit and read a text together. This helps children in understanding how certain words are read and gives them the required practice.
- *Paired reading* in which two children form pairs and help each other in reading practice
- *Independent reading* in which children are encouraged to read books independently, as per their reading levels.

The recent guidance from the Central Government on *Padhe Bharat, Badhe Bharat* also recommends 150 minutes of language teaching per day, inclusive of first and second language instruction and a minimum 30 minutes of independent reading time. One must not think of this independent reading time as a luxury, rather view it as a compulsory activity in the primary grades.

Room to Read's long-term vision is to help children become independent readers and thus, empower them for lifelong learning, which is aligned with the Sustainable Development Goal of Quality Education to All by 2030. To achieve this, now is the time to concentrate our efforts towards providing well-informed, well-researched, well-designed, scalable and sustainable, early-grade interventions. Given that reading is the foundation of academic learning and that low reading levels are detrimental to learning, the challenge for the public education system is to ensure that children read fluently and with comprehension.



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The Bhasha Research and Publication Centre, Vadodara, was founded in 1996 by Padma Shri Dr Ganesh Devy. A professor of English Literature at M S University of Baroda, he took voluntary retirement to pursue research arising out of his deep concern about endangered or dying languages. In the course of his research, he found that the languages that stood to lose the most were those that belonged to largely tribal and nomadic communities. One of the most important reasons was that these languages did not have a script and existed mostly only orally.

It is well-known that in tribal contexts, social indicators present a dismal picture. Experts pointed out that education remained far removed from the context and the social reality of tribal groups, making it both unreal and irrelevant for them. Teachers even in other under-privileged environments reportedly have a disconnect with children which is exaggerated further in tribal environments. It is well-known that bridging these gaps requires a more engaged teacher community and greater emphasis on mother tongue and first language-based education.

The challenges

Since Indian states are divided on a linguistic basis and the medium of instruction in government village schools is the state language, the same rule applies to schools in tribal villages. The appointment of teachers in these schools is a centralised process and this can result in non-tribal teachers from a district far away from the tribal zones to be posted in tribal schools. So, while on paper, the matter is simple and obvious, in the classroom it becomes highly complex.

1. Rural children often go to class I directly at age 6 (or so) without the semi-formal protective/preparation bridge of the nursery-junior-senior kindergarten years that urban schools have. There are *anganwadis/balwadis* as pre-schools in many rural areas and there are many educators and groups engaged in pre-school education,

who are trying to empower these in pedagogy and early childhood education (EEC), yet the contribution and efficacy of the hundreds of *anganwadis/balwadis* across Indian villages in preparing the child for the class I curriculum has not been established.

2. According to the curriculum of individual state boards, a child in class I is expected to be able to read and write a full sentence and do single digit addition /subtraction. This is a huge challenge for the teacher when most children in the class have never done this or cannot do it.
3. This is made more difficult when the teacher's language (medium of instruction) and the child's language are not the same. So, neither understands the other.
4. Unable to follow what is going on in the class, most children drop out and rarely get the opportunity to return to school.

One of the tools devised to get answers to this problem was designing the *Pictorial Glossary* for every tribal language, a simple illustrated notation of 1200-1500 words that an average child understands by the age of 6 (age for entry into class I). The word, in the tribal language, is visually communicated via an illustration and its translated word/meaning in Gujarati/English/Hindi is also offered. The teacher (non-tribal or one who is unfamiliar with the language of the region where he/she is posted) can use the *Pictorial Glossary* of a language that is largely spoken in the region of his/her school, to communicate with the children in the class. Simple one-day workshops are designed to train teachers in the optimum use of the glossaries, so that they pick up commonly used words and phrases in the prevalent language. Some of our glossaries are used by the *Sarva Shiksha Abhiyaan* in Gujarat for distribution to the teachers of schools in areas where that tribal language is predominant. Till date, we have created sixteen *Pictorial Glossaries*, twelve for tribal languages and five for nomadic languages.

The Vasantshala model

Bhashaⁱ started the residential schooling programme, *Vasantshala*, in 2005. Before that, we had gathered several years of experience, conducting non-formal schooling of construction labourers' children (mostly tribal families from the Chota Udaipur region) at large building sites in Vadodara, followed by several years of working with school-going children in the villages of Panchmahal and Chota Udaipur talukas/districts. These were limited-year projects and when they ended, the students were again left to their own devices. We felt this method of work was highly unfair to the children and so we decided to run a schooling programme ourselves.

That was how *Vasantshala* came to be conceptualised. We admit sixty out-of-school boys and girls between the ages of 6 and 12 from very poor, migrant families who would otherwise have no chance to go to school. Over the first two years, we found that these children generally belonged to Rathwa, Dungra Bhili, Tadvi and Bhili tribal communities and each community has its own language that its children spoke. They did not speak much Gujarati, the state language. They could barely understand any of the other three tribal languages, except their own. So, we had a complex mix of languages with just sixty children. The tribal teachers we engaged with, had some education, but their main qualification was their desire and ability to learn all the languages that their students spoke. But even more important was their love of teaching, their ability to actually deliver in the classroom and their fondness for children.

The Vasantshala pedagogy

At the beginning of the academic year (now April from 2020 as per the new Government rules), all newly admitted children are assessed for their learning levels, comprehension ability grasp of taught matter, aptitude, socialisation patterns and for any special talents as some of them may have gone to a school at some point in time. Based on the assessment analysis of their learning levels and abilities, the teachers decide the age-appropriate learning level to be achieved by each child and distribute them into five learning groups:

- a. Jagruti: Grades 1 and 2
- b. Prakriti: Grades 3 and 4
- c. Sanskriti: Grade 5

d. Svakriti: Grade 6

e. Pragati: Grade 7

However, a child is free to attend one or more groups simultaneously as per her/his ability in a particular subject. Assessment is a continuous process. While formal tests are conducted every three months, teachers keep track of the children's progress through observation, classwork and participation, etc. We have found that most tribal children can 'pick up' academics very quickly and are also endowed with a certain amount of 'street smartness' that helps them in common interactions with people.

Academic subjects and content are at par with the Gujarat Board curriculum. An intern at *Vasantshala* was impressed by how well the teacher in a class he was observing explained the idea of *nagarpalika* to students who did not have any idea of positions above sarpanch in public administration. Did the children understand? Yes, they did, though a lot of them asked questions and framing the answers to their questions helped the teacher to explain the concept even more clearly.

While teaching classes begin immediately, the children are allowed to take time in the initial weeks to adjust to the new surroundings, be by themselves, make friends, get back to studies in class, get to know their teachers better and familiarise themselves with others at the Academy. Typically, a new batch settles down by August-September, when teachers and children turn their attention entirely to the teaching-learning process. Therefore, during these six months, there is more intensive classroom work. Extra-curricular activities are also designed to complement the learning process.

Since the children belong to three or four language communities (*Rathwi, Bhili, Chaudhary, Tadvi*), in the initial months, the children are taught in their mother-tongues. As is the practice at *Vasantshala*, they are actively encouraged to speak their mother tongues in the classroom and also outside of it while conversing with teachers and other children, playing games and during other extra-curricular activities. These languages are heard by other children and teachers and slowly others begin to use them as well. The teachers use them

ⁱBhasha Research and Publication Centre was founded in 1996 with the purpose of giving 'voice' to Adivasi communities in India. The Adivasi Academy is founded by Bhasha at Tejgadh in Chhotaudepur district of Gujarat.

for all subjects, including language. This process helps the child feel proud of his/her language and use it confidently. But more importantly, it helps the child gain/regain interest in studies – reading and writing – as her/his comprehension increases.

Once a child begins to acquire primary literacy in her/his mother tongue, s/he is introduced and transitioned to Gujarati and gradually to Hindi, Sanskrit and English and, of course, all the tribal languages the class speaks. This makes *Vasantshala* truly multilingual. For the last two years, two German gap-year students have been interning at *Vasantshala* and the children have picked up some German phrases and songs, while teaching them Gujarati!

A sample yearly plan

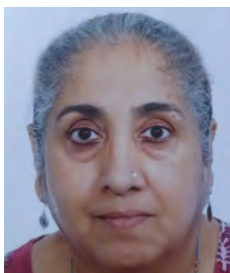
The *Vasantshala* programme engages with the students for around 300 days in a year, here is a glance at a typical yearly plan (June 2016 to April 2017):

MONTH	ACTIVITY
June	Arrival of existing students of <i>Vasantshala</i> . Making sure that the mainstreamed students from the previous academic year get well-settled in their new schools. New students identified and admitted. Teaching and all co-curricular activities begun. Books and stationery organised. Children measured for a pair of new clothes and sandals. The first term concentrates largely on schoolwork, because rains prevent outdoor activities.
July	Teaching and activities continue. The new children are helped to settle down.
August-September	Teaching and activities continue. Celebration of festivals. A short <i>Navratri</i> /Dussehra break.
October	Informal mid-term exam held.
October-November	Diwali break from 27th October to 9th November.
November	The second term allows for many more outdoor activities. There are more visitors on the campus as well as a lot of Academy activity, some of which the children participate in. 'Plantation Week' was observed from 19th to 25th November during which time, the children were introduced to agriculture and gardening. Children chose their own patch of land to create a garden and sowed seasonal vegetables such as <i>methi</i> , coriander, <i>palak</i> , <i>chana</i> and brinjals. The garden is tended by the children throughout their stay at <i>Vasantshala</i> . An earlier batch of children had also taken to vermicompost preparation. Gardening keeps the children in touch with nature, land and agriculture and also provides them an opportunity to contribute to the centre while learning from it. The Academy has its own canteen where our own produce is used. The children are also encouraged to spend some time in the canteen learning simple tasks related to cooking. This helps in inculcating teamwork and life skills. On 28th November, the <i>Vasantshala</i> teachers took the children to <i>Tejgadh</i> to visit the <i>haat</i> bazaar held every Monday. This is a weekly market held in a village where the communities come to buy and sell things needed in daily life, related

Bridging learning gaps

Between September and March, the teachers focus on bridging the learning gaps of those children who need to be mainstreamed in regular schools as they become age appropriate. They are prepared and coached to be able to enrol in class V or VI, according to their abilities in the government residential schools so that they can complete their schooling successfully. These schools are selected based on the aptitude of the child and how close the school is to the child's family village. On an average, 30 children are mainstreamed every year, and most manage to clear the class X examinations.

MONTH	ACTIVITY
	to the household, agriculture, animal husbandry, etc. The <i>haat</i> also serves as a social space where people from nearby villages meet to discuss marriage alliances, extend invitations for special occasions, sell cattle, etc. The children were taken to the <i>haat</i> to understand the significant role it plays in the village economy and in binding social relationships.
December-January	<p><i>Vasantshala</i> teachers combine the curriculum of the government schools with traditional songs, stories, dance, music and art of the communities. Since many researchers, scholars and students visit and stay in the Adivasi Academy all through the year, the children get opportunities to interact with them. This exposes them to different languages and cultures and builds their confidence to socialise with the wider world.</p> <p>The children are encouraged to participate in music and art workshops which the Adivasi Academy holds from time to time. This year, the children participated in a week-long Artists' Workshop organised from 10th to 17th December 2016 by Bhasha Centre at the Adivasi Academy and supported by the Oil and Natural Gas Corporation. Bhasha had invited Adivasi artists from Tamil Nadu, Gujarat, Maharashtra and Rajasthan. The children spent time after their classes with the artists to learn painting, terracotta pottery and bead jewellery. The artists held special sessions after their own work to teach their art to the children. The workshop acquainted the children with Adivasi arts practised in other regions of India. This also inculcates awareness and respect for linguistic and cultural diversity. During the workshop, the artists identified four children with special creativity whose talent should be nurtured.</p>
February	<i>Van Bhojan</i> , a day picnic to a nearby place is organised. Some of the older children travel to Vadodara with their teachers and others from the Academy to participate in the Vadodara Marathon's 5-km run, carrying placards about the importance of education, of linguistic diversity and tribal rights.
March-April	Holi is a very important festival for tribal communities and <i>Vasantshala</i> gives a short break for the children to go back home and celebrate with their families. The summer sets in and all attention is on studying and preparing those children who are to be mainstreamed in regular schools for exams.



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With a background in literature and a doctorate in social science, **Sonal Baxi** has worked closely with the Adivasi, de-notified and nomadic communities. Her experience combines research and grassroots interventions in diverse areas as education, art and culture, human rights and development. Her areas of specialisation include fundraising, project management and publishing. She may be reached at sonal.bhasha@gmail.com



That all children can learn is the truth. Learning can happen in any space and at any time. Learning opportunities for children vary due to several reasons. There are places where children have access to all modern learning equipment and access to schools that facilitate learning in an interesting manner. At the same time, there are places where children do not have the privilege to have such access because of the context, many such children are first-generation school-goers. For them, the school essentially plays a big role in learning in many ways. One such area is the Shiv block in Barmer district of Rajasthan where a research study has been conducted for three years. This article is mainly based on that research and highlights the following:

- The issues in the context that obstruct the children's learning in a place where the status of social development parameters, including illiteracy is alarming.
- The systemic issues that pose a big hindrance to the children, who are keen to learn but do not get enough opportunity and consequently, lag behind for decades to come.
- The tentative areas to be prioritised by the government and/or other agencies to enhance the learning of such children.

The context that obstructs children's learning

If you visit a school, the children studying in elementary classes (classes I to VIII) may ask you to teach 'something' in the classroom, saying *kuchh padha do*, despite even not knowing you. This, I experienced repeatedly in the schools of the Shiv block, located at the fringe of the Thar desert in Rajasthan. These schools are in remote villages consisting of small hamlets (locally known as *dhani*), where transport and communication are poor, electricity is frequently cut or not available, internet is still a dream, many children have illiterate

(or semiliterate) parents, female foeticide and child marriage are common, *Anganwadis* hardly function and there is no library at all.

Why do these children request a stranger to teach them *something*? One of the reasons is that in many such schools, there is no teacher in the class, sometimes, even for the whole day. Teachers might be 'busy' with some other work, not necessarily teaching, during the school hours. When this situation prevails for long periods of time throughout the year, the children do not get an opportunity to learn in the school. If someone argues that learning can happen anywhere, I would surely agree, but learning through exposure in formal education spaces remains questionable because of the context-specific limitations in this location. At home, parental support for formal education is almost nil. What they often learn are based on patriarchal traditions of their society, belief systems that nurture all practices like gender discrimination, child marriage etc. For most of the villages in this block, the nearest government degree college is available only at a distance beyond 50 kms, so education beyond class XII often remains a dream.

As per the Human Development Index (HDI) of the districts in Rajasthan, Barmer ranks the lowest having an HDI value of only 0.4035 while Jaipur, the top-ranking district of the state, shows 0.7308 as its HDI value (Singh and *Keshari*, 2016). The literacy rate in Barmer district was 56.5 percent in 2011 while the state average was 66.1 percent. Gender gap in the literacy rate was 30.3 percentage points in Barmer. Census 2011 indicated the high percentage of adult illiterates in Barmer as shown in the table below, which is quite alarming for the learning space of children in their immediate families.

Table 1: Adult illiteracy as per 2011 Census

Areas	Age group	Total	Male	Female
All areas	15-34	35.89	18.93	55.83
	35+	70.99	53.91	88.67
Rural	15-34	37.68	19.88	58.69
	35+	74.23	57.34	91.63
Urban	15-34	15.27	7.71	23.73
	35+	34.24	15.98	54.10

Systemic issues as seen in policies

Educational governance has three main pillars: provisions, regulations and funding. In India, education is a subject in the concurrent list and therefore, such pillars must be maintained by both central and state governments. Let us look at a few of the most important parameters indicating the huge need for paying attention to children and their learning in remote locations, such as Barmer, which is not an isolated case. They are there in many states where children are victims of the negligence by the governance.

The Right to Education (RTE) Act 2009 has set the pupil-teacher ratio as 1:30, a mathematical calculation. The education departments of many states, including Rajasthan, have removed support staff from government schools. There are huge implications of such decisions. If one school has 30 students, the school gets only one teacher, but with an increase in enrolment, the number of teachers may increase as per the sanction of the higher officials. In many primary schools in Shiv, there is one teacher, or at the most two teachers. Subject specific teachers are often missing in middle school. The children of such schools are keen to learn, therefore, they ask any stranger who seems to be educated, to teach in their class.

Let us look at two assumptions of the government: One, that the teacher can take care of 30 students and their school-related activities and development and second, since there is no support staff in elementary schools, perhaps the system wants teachers and students to take on the entire maintenance process as their responsibility.

If we analyse these assumptions, they seem to be unreasonable. Imagine yourself as a primary school teacher with 30-40 children who are in different

grades and need different kinds of attention. They can learn if the teacher can facilitate that. What will you do as a single teacher? You have to maintain all records of the school, take care of the midday meal and therefore, will have to coordinate with the cook, at the same time, you have to teach in a multi-grade classroom. What best can you do throughout the academic year given all these responsibilities?

- If we assume that these teachers are eligible to take care of multi-grade teaching, we need to understand their academic qualifications and work experience. As per the government requirements, primary school teachers (teaching up to class IV) are either graduates (though not necessarily with specialisation in any school subject) or class XII pass with a diploma in teaching. Are they mature enough to handle multi-grade classrooms while taking care of other administrative responsibilities?
- Who will maintain the school premises when there is no support staff? Of course, the teachers and students. This means the maintenance of the toilets, midday meal space, classrooms, playground, teacher's room (if any). In such a place, children of lower castes often have to take charge of the cleaning work. Are these legitimate expectations?

For middle schools, all these issues, in addition to the lack of subject-specific teachers, prevail.

Somehow it gives a sense that all these assumptions are based on the typical mentality and understanding of government schools, to which many people feel only under-privileged children go and any effort to improve these schools is unnecessary. A few days back, a person working in one such school, with children from extraordinarily challenging situations, told me, 'Madam, they get the opportunity to

come to school and have food, isn't that enough for them? Why can't they clean the premises and toilets in exchange?' I couldn't digest this argument. Is it a valid reason for treating children in this way in the name of Right to Education? Will the policy makers and implementers send their children to a school without adequate teachers and no support staff, where their children will have to regularly clean their own toilets, teachers' toilets, classroom, school premises and even mid-day meal utensils?

Systemic issues as seen in practices

A very recent development (2019-'20) is the introduction of an Integrated Teacher Training Programme called, NISHTHA under the Centrally Sponsored Scheme of Samagra Shiksha. This is a national mission launched by the Department of School Education and Literacy to improve learning outcomes at the elementary level. The Government portal states that this is a capacity-building programme for 'Improving the Quality of School Education through Integrated Teacher Training': NISHTHA is the world's largest teachers' training programme of its kind and aims to build competencies among all the teachers and school principals at the elementary stage.. The basic objective of this massive training programme is to motivate and equip teachers to encourage and foster critical thinking in students. The initiative is first of its kind wherein standardised training modules are developed at a national level for all States and UTs (www.india.gov.in).

This programme can definitely provide a good platform for teachers to socialise with each other. The modules are well-designed, and the efforts made are visible. The programme is meant to be 'conducted in customised cascade mode, in which National Resource Group of Experts will train Key Resource Persons (KRP) (identified by the state/ UT for further teacher training) and State Resource Persons (SRP) (identified by the state/ UT for further training of school principals and other functionaries). These KRPs and SRPs will directly train teachers and school principals' (itpd.ncert.gov.in). It has been said that this training will help in reducing the high percentage of communication loss which, due to many layers, existed earlier. Despite all these promises, some issues need to be recognised and appropriately addressed. These are discussed below.

Large scale target showcasing of big numbers

The government website claims, 'All the teachers,

principals, block resource coordinators, cluster resource coordinators working at the elementary stage will be covered for training on learner-centred pedagogy, learning outcomes, improving social personal qualities of children, school based assessment, new initiatives, school safety and security and pedagogies of different subjects, etc.

It is indeed a tough task to cover so many areas for the capacity building of 4.2 million teachers as per the promise made so far. When the target is big, the achievement remains questionable due to the huge complications in the accountability framework, more so because of the involvement of numerous stakeholders. Also, the 'one size fits all' approach is problematic. It might be better to go phase by phase rather than targeting a big number. For this to be successful, careful prioritisation must be done. Remotely located schools, which rarely have the luck to get CSR or NGO support, must be prioritised for this and the plan for such school teachers must be made differently.

Approach missing the concept of 'surrounding circumstances'

Such training often happens in a common place as per the convenience of the employees of NGOs and educational functionaries. This comfort and relief from the hardship of daily school life may be welcomed by a few teachers, but many, especially those who are self-motivated and genuinely committed, find it inconvenient. As a result of such trainings, teachers lose their teaching days for many weeks in a year and the children, who are so keen to learn, suffer equally. The training organisers need to understand this issue.

One of the NISHTHA Training modules quotes Mahatma Gandhi's speech, 'True education must correspond to the surrounding circumstances...' Following the same thought, such training programmes must be arranged in schools only where demo classes can be taken along with students by experts involved in training. For better logistic arrangement, four or five schools can be identified, and the teachers clubbed together in any one of the cluster schools for not more than a week. Thus, the venue of training will change on a rotational basis and each teacher can get at least one day training in her own school in each phase with proper demo classes. Before doing this, single teacher schools must be provided with more than one teacher to ensure that schools operate even if that one teacher attends the training for a week.

Ensuring benefits reach the classrooms

NISHTHA training targets to make teachers reflective practitioners, therefore it is essential to make the trainers well-equipped with module transaction. The modules are not very easy to grasp for many teachers having very little, or no teaching experience. For example, here is a reflection question from the Environmental Science Module:

‘Identify some exercises in the NCERT, EVS textbooks where teachers are asked to discuss with children some of the critical concerns in order to develop awareness and sensitise them towards the issues.’

A teacher needs to do thorough homework to transact this in the classroom as per the expectation. Here, the charisma of a teacher comes into play. Teachers must build a regular practice of self-learning to utilise the modules. Only then can the benefit reach the classrooms. Can they do it in schools in remote areas similar to those in Shiv block where teachers struggle and juggle with many things other than teaching on a regular basis?

Suggestions for prioritisation

If the human development parameters are considered important for the development of the country, Barmer and its blocks, like Shiv which are visibly lagging should have got special attention for improving development scenario as per the context specific requirements. Unfortunately, that kind of focus has remained a dream here for decades. In such a context, despite having both the need and the desire to learn, children are deprived of the

same because of the lack of space created for their learning. There is huge potential among the students of this area where children face hardship in daily life. There are also extremely committed teachers in some schools who, despite all odds, are ready to guide students with their limited resources. It is important to identify such ‘sparks’ among teachers and utilise their leadership quality as functional leaders with due recognition in various forms. It can surely add value to the quality of education and some of the best sports personalities, engineers, social scientists, lyricists, doctors and all kinds of professionals can be readied in these schools to make our country proud. To achieve this, here is a brief checklist of provisions to be considered by the government:

- Support staff for these schools.
- Teachers in every school according to the requirement of grades, not as per the pupil teacher ratio.
- Transport facilities for teachers and students in remote areas to commute to the schools.
- Regular visits of teacher trainers to encourage good teacher leaders and take demonstration classes in respective schools (instead of spending unnecessarily on venues and food in unconnected areas, depriving school children of regular classes).

Let the sparks of promising teachers and students in remote schools light the torch of hope for Shiv in Barmer and many other such places.

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Opportunities for Children of Migrant Labour

Shobha L Kavoori and Shubha H K



Introduction

In its broad and philosophical sense, the greater purpose of education is undoubtedly that of enabling every child to reach his or her full potential. The conviction that *every child can learn* seeks to capture this sensibility, even while keeping in mind that learning processes may vary with the individual child's developmental stage, pace and motivation to learn. Another dimension to be factored in is the external environment within which learning is experienced and transacted, namely the socio-economic background of the child that quite often dominates and thereby, critically affects the development of learning.

A compelling instance of constraints imposed by context on children's learning capabilities as well as the challenges faced in putting together institutional processes may be found in the experience of children of migrant labour populations in large metro cities. Comprising largely of rural households migrating from different states to work on construction sites, where subsistence and physical survival are itself uncertain, investment in education is inevitably a low priority. Apart from this, the transient nature of parental employment offers little stability (structurally, as well as, in time) to the children and presents multiple obstacles to developing a systematic educational process.

Keeping these considerations in mind, the Azim Premji Foundation initiated in 2007, the *Education for Children of Migrant Labour* (ECML) programme for children of construction workers through setting up of centres at two sites in Bangalore, with the support and involvement of the builders themselves. The aim of the programme has been to bring primary schooling children of this group into the mainstream within one year, as mandated by government norms, through the implementation of a curriculum specifically tailored to their needs. Most children who come to the centres have been previously listed as dropouts in government records.

Schooling has not been a pleasant experience for these children. It is one of being pulled up for

missing school, not being able to read or complete their homework as, inevitably, lack of continuity is extremely challenging for such children in understanding concepts and there are gaps in learning. It is hardly surprising to find such children losing interest in school and learning. In addressing their educational needs, it is critical, therefore, to keep in mind this constraining context and uncertainty.

Instances of children who have been at the centres (see box) suggest that for some, the ECML initiative has undoubtedly provided an opportunity for dramatically improving learning and realisation of potential. There is data to support the view that even at the broader level, the programme may have had a positive impact on children's lives through positive educational outcomes. As per records, the Bridge Programme has covered around 1700 children over the past 12 years and of them, 745 children have successfully made the transition to mainstream schooling. Furthermore, since tracking children whose families are constantly on the move has practical limitations, it would mean there could be children who have continued education elsewhere but are not in the records of the centres.

'I want to learn, and I know I can'

*Snippets from the lives of children who were at the Centre**

Sumati came from Raichur with her parents. In Bangalore, she was expected to take care of her nephew. When the baby was enrolled at the Centre, her parents were persuaded to enrol her at the Government school, following which she came to the Centre for a year to be able to transit to regular schooling. Hesitant, shy and labelled as a dropout earlier, Sumati is today a PU (+2 equivalent) student and enjoys being on stage, often anchoring programmes both at her school and during the annual function at the Centre.

Seven-year-old Bhima came from Andhra having dropped out of school earlier on. Once

at the construction site, his parents brought Bhima and his two brothers to the Centre. Bhima and his brother, a year younger, were enrolled at the local Government school. The youngest also came to the Centre and was placed in the playgroup. Each of them came to the Centre for a couple of years before transiting to regular school**. Today, all three are pursuing graduation courses with English as their medium of learning. Bhima is a budding choreographer, one of his brothers, an artist, is pursuing a degree in Computer Science and the third is in the Commerce stream.

Vishnu came to the Centre when he was seven, not having been to school for over a year. He was enrolled in class IV at the Government school and spent some time at the Centre. Vishnu went on to study up to PU. Although he did not complete his college degree, he has confidently started a business of his own as a contractor for house maintenance.

* Names of children have been changed.

**At the time, Government rules did not mandate one-year for bridge courses.

Crucial aspects of the programme

This article looks at three distinct yet inter-linked aspects of the ECML programme - the culture and routines of everyday practice at the centres, the curriculum and the crucial aspect of the involvement of all stakeholders in the children's learning process so as to reflect on what perhaps made it possible for many of these children to learn, develop and continue schooling.

A culture that builds trust and confidence

The ECML initiative is rooted in the belief that every child can learn and experience success in their learning and development, provided they get an opportunity to learn at their own pace and get adequate support to do so. A critical feature of this programme is providing children opportunities to enjoy learning in an environment where they feel safe and cared for, as most of their schooling has been erratic and therefore, a poor experience.

The following paragraphs illustrate how such a culture developed over time through conscious effort.

- For teachers, the focus is on building trust, so fear or threat (even implicit) is never used to motivate or discipline children. New teachers learn by observing how others handle situations. Children trust their teachers and share thoughts and problems with them.
- The classroom pedagogy consequently emphasises learning together, allowing children to discover, to have free and open discussions and dialogues. For instance, during the bi-weekly sharing meetings at assembly time, children often talk about their feelings when they get upset due to problems at home. They talk about quarrels between parents, father's drinking habits, mother being beaten or quarrels amongst neighbours. The environment during these meetings is of calm, concern and care. Teachers listen to what children say without passing judgements. Sometime later, teachers may visit parents at their homes to discuss how their behaviour impacts their children.
- When they join the Centre, children are at different learning levels across age groups. They work together in level-based groups, irrespective of their age. Teachers use multiple strategies to deal with the mixed feelings generated amongst both older and younger children about working together. They assign specific responsibilities within a group, ensure that each child is provided positive reinforcement at every step and that children's groups change as they advance in their learning. Eventually, it matters little to children that they sit in mixed-age groups.
- While there are three age groups at the Centre, each with a specific curriculum, younger children are not prevented from sitting with older siblings. This may continue until the younger child settles down. This has helped in building a culture of care and sensitivity amongst the children too.
- Children get milk in the morning, lunch and a snack in the evening before they return home. Teachers eat with the children and this fosters a strong bond between them.
- Some children display behavioural issues in the beginning: beating children, running around, throwing things and not putting toys and material back in place. Teachers work on changing these habits through reasoning and gently explaining what is expected of them and why. Sometimes, older children also help by talking to them.

- For the children who are mainstreamed, there is a strong sense of belonging and they look upon the Centre as a second home. Most visit the Centre before going to school and when they head back home, joining the rest for the evening snack and to complete their homework. They also take responsibility for the care of younger children by serving the food, cleaning up and helping the teachers in the classroom during school vacations.

The curriculum: a modular approach

The programme adopts a developmental curriculum approach that includes all children regardless of their ability. Children are placed in the appropriate age group - infants and toddlers (6 months to 3 years), pre-school (3 to 6 years) or the primary school group (6 years and above). For the younger groups focus is primarily on health and nutrition with some stimulating experiences and building of oral language.

The effort has been to build a flexible curriculum covering different domains of learning. New children are encouraged to move around and get oriented to on-going activities and the environment. If it seems likely that they may stay on for a while at the (construction) site, they are enrolled in the government school nearby. Thereafter, teachers at the Centre assess children to gauge their learning levels, before placing them in appropriate learning sub-groups.

A modular approach is followed for this group since children are expected to be mainstreamed within a year. Each module is a complete unit as the children's continuity at the site is uncertain and it covers both Kannada and English, mathematics and environmental studies. Basic concepts are frequently revisited in the course of teaching. This helps to introduce a concept to a child who has just joined and at the same time, the revision helps the others. The focus is on providing basic literacy and numeracy skills.

Children are encouraged to be curious, active and enthusiastic learners with opportunities to listen, discuss, play, create and engage in drama and art and other activities. Materials and resources found in day-to-day life are used to teach different subjects. Teachers have been part of the process of developing these materials and are consequently able to use these in an informed manner.

Mathematics concepts are understood with the help of manipulatives and students work with a

variety of materials such as 'fake paper notes' while learning currency, bundles of sticks help in understanding the concept of place value, a real clock is used to illustrate the structuring of time and materials like pebbles, beads and bangles are introduced to enable the understanding of different concepts.

EVS classes include brainstorming and group discussions, role-plays, visits to the bank, post office, railway station, bus stop and petrol bunk that help make children more aware of their surroundings. The emphasis is on encouraging children to ask questions and share their understanding and experiences.

Kannada is the basic medium of instruction along with some elementary English. Teachers provide help with Hindi to those whose mother tongue is Hindi. Enacting stories, poems, riddles, and employing 'authentic' materials like newspapers, wrappers etc. contribute to language learning. Activities such as *Word for the Day* benefit children and are enjoyed by them.

Children are encouraged to bring new words they have encountered. This encourages discussion and children get an opportunity to speak about their experience. The word for the day is put up in Kannada, English and in Hindi too if needed. Children may share words of objects, a feeling or an event. For example, at the initial level, children listen to a word, like *happy*, *anklet*, or an experience, like going to a *mela* in all three languages. They then go to the second level by making simple sentences in Kannada and some English using the word for the day.

A component on health in the curriculum encourages discussions on nutrition and hygiene. Activities like gardening and cooking offer interesting opportunities for learning and fun. Children learn about balanced food and about basics of cooking, like how of sprouting lentils, cooking vegetables or making chapatis. Cooking sessions also help to develop skills of estimation and measurement along with building language skills.

During gardening hours, children learn to grow and tend vegetable patches and share the harvest. A mango tree planted some years back yielded fruit this year. Children and adults made pickles together and distributed it amongst themselves.

These are built into each module and are largely formative. Since each child learns at his or her

pace, assessments are used to record the progress of the individual child. Children get opportunities to demonstrate learning in different ways. Teachers' continuous observations and detailed notes facilitate planning and preparation. Records are maintained along with individual portfolios for each child with the child's work. A summative assessment at the end of a module is done mainly with a view to preparing children for the pen and paper tests once they join school.

Involvement of stakeholders

Teachers

Teachers' are regular and committed to supporting children both in their learning and emotionally. Confidence building, sharing, working in groups, accommodating and adjusting to new students, are all worked on through continuous dialogue, sharing and participation. All of this contributes to the making of a smooth and confident transition of children into the mainstream.

Teachers speak at least three languages and try their best to make new children comfortable, coming as they do from different parts of India, speaking different languages. They maintain records of every child's progress. Since children often leave in the middle of a module with their parents who return temporarily to their villages, these records are crucial when the children return to the Centre.

Sharing and planning by teachers are intrinsic to the ECML programme. Once every fifteen days, teachers meet to reflect on the previous fortnight's experience and plan for the next. They also discuss issues related to the community, health and nutrition, tracking of children, administration etc.

Teachers make a concerted effort to keep in touch with the head teacher of the government school where children are enrolled to update records and to know about the progress of children for whom support continues at the Centre. They share information about the curriculum and the culture at the Centre with the staff of the government school emphasising that there is zero-tolerance for corporal punishment.

This interconnectedness between institutional spaces has a crucial role in ensuring that children feel motivated and continue regular schooling without fear. The staff of the Government school where the children go, often observes that these children are confident and though they might not always be at expected class levels when they join, it helps that they are motivated and open to learning.

Parents / community

To the community of parents, understanding and appreciating how the Centre functions as a formal learning space with a routine and a philosophy has come with time and constant dialogue. Given the uncertainty of their period of residence at the site, engaging regularly with parents has a crucial role in enabling continuity of schooling and mainstreaming. Teachers are in constant touch with parents and orient them to processes at the Centre.

Members of the community take part in day-to-day activities of the Centre. Mothers who have babies and are not working at the sites come in to help with the care of other toddlers. They serve food, narrate stories and sing songs to children. Community members also help in aspects like bringing in new children, celebrations, maintenance and upkeep of the premises including painting and cleaning. They are invited to share their experiences, talk about agriculture or their work at the site; about materials used in construction, safety precautions etc. Parents are encouraged to sit in the classroom and observe their children's learning.

A committee comprising parents, old students and representatives of the builders are responsible for helping the team at the Centre in tracking children, ensuring that children attend school regularly; motivating parents to continue children's education; educating the community about safety and security of children and so on. Parents are also encouraged to put money in a bank for their children's education if they can.

Lessons from the experience

There are certain key aspects of the programme that have enabled this. The first and perhaps the most important lesson is that the population we are looking at is limited by its vulnerabilities. What emerges then is the critical role of providing a safe and enabling environment. The second essential factor is the role and orienting of the teaching community in building a relationship with these children and in developing appropriate pedagogical practices. Notably, teachers play a crucial role in the successful transition to regular schooling, an aspect that needs to be emphasised and strengthened. The role of the curriculum emerging within this context in terms of method

and material is important, but contingent on the successful implementation of the above two aspects. Finally, the parental community may be seen as a potentially enabling factor

rather than a limiting one. Attention needs to be paid as to how their role in supporting the transition to mainstream schooling can be better leveraged.



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Effect of Storytelling on an 'Under-performer'

Sonia Khudanpur



In the early days, visiting government schools in Rudraprayag, I would experiment with many language teaching methods that until then, we had only read and talked about. Of these, storytelling was always a hit. I have seen small but consistently positive results with storytelling on children – from engaging the attention, developing an interest in books, to awakening the desire to express through talk or writing.

I am no expert at storytelling, so I decided that the first thing to do was read and memorise stories to tell and expose children to new storybooks. At one of the schools where I spent a few months, I used to carry a few new storybooks to school each day and memorise at least one or two stories to tell in my own words. The time I spent in the school was adequate to befriend the children and observe the effects of storytelling.

The initial days were exciting. Children would be curious to know what I had brought. They would ask me in the middle of the class to pass the book or come and stand next to me to get a good look at the book. They were always eager to see which new books I had brought with me. I would read or tell a story depending on their requests.

Whenever there was free time, I would give these books to the children. Initially, it started with the children turning them over in their hands, flipping through the pages, looking at the pictures and returning them soon after. Very few would try to read. The ones who believed they were good would try to read the text, even if it meant only the title of the book, whereas the ones who thought they were not good, would simply look at the pictures, turn the pages, and often say, 'I can't read'. They would say this, despite knowing the alphabet, knowing the sounds of letters, and reading and writing daily as part of the school routine. Encouragement had little effect in the beginning. But as weeks passed, something happened: even those who were not confident were asking for more stories.

Aman from class II was considered mischievous and distracted. His teacher believed he could only copy well from the board or from his classmates' notebooks. He rarely did his homework and never took much interest in the class. He was forever fidgeting or making mischief. Aman did not take much interest in looking at the storybooks I used to carry to school. If another student was reading, he would peek, comment to make fun and then return to his seat. Expecting him to read on his own was not working. When I told a story, Aman did not have the patience to sit and listen. He wanted to run around, play or fight with someone.

But something about the stories caught his attention. In the initial storytelling sessions, Aman would stand close to me, listen for a few minutes, repeat a line in the same expression and leave the group. He would do this repeatedly. Then this reduced. A point came when he would not only repeat an interesting phrase after me but would ask me to go on: *phir?* (then?) or *phir se, phir se* (once more). He would want me to tell the story again or move to another story.

This change was encouraging. One time, I asked him, 'How about I read a story for you?' He said, okay. 'Will you select a few books from the shelf for me to read? Which of these should I read?' I asked.

Once Aman made me read *Raftar Khan ka Scooter*. I was nervous because I had not read the story before. I tracked the words with my finger as I read and used as much expression and voice modulation as I could manage. If he liked a line, he repeated it under his breath, first after me, then with me. He was paying attention to the lines. If I missed a word or a page, he would point it out to me. Seeing his involvement, I was thrilled.

I made it a point to sit at the level of the children, so they could see and touch the book if they wanted

to. Aman made me read this story at least six to seven times. He had almost memorised the lines. He started selecting more books and even started telling me what kind of stories he would like to hear. To help him read better, after reading a story, I asked the class, 'Shall we write this in our notebooks?' They all said yes. I began writing on the board. A student asked if she could write a line on the board. Then, Aman asked to do the same. I said yes to both. Now Aman had the book in one hand, chalk in the other, and was trying to write legibly. He managed to write clearly, read what he had written, and tell his classmates.

I later spoke with Aman's teacher about the interest he had shown in reading and writing. She did not seem too impressed. After all, she was assessing him on the usual parameters of answering a question from the lesson and getting answers on the test right. Aman could not do these yet. But she did say that when Aman is interested, he does his work well. When I met her next, she said he was reading better. It seemed like she was looking at him differently. There was more empathy and belief in his ability to do well. The teacher explained to me that she had spent months trying to teach Aman to read and write. She made him write letters, words and sentences countless times in the hope that he would improve. There would be some improvement and he would fall back to exactly where he was.

In the short time that I have spent in government school classrooms, one thing is clear – a child usually lives up to his teacher's beliefs about their own abilities. *If my teacher believes I am a mischievous, careless child who cannot pay attention or do her work properly that is exactly who I will be.* In every classroom, a teacher naturally tends to categorise students on the basis of her initial impressions of their work. There are the good ones, the capable ones, and those beyond help. Aman, unfortunately, belonged to the last category. But storytelling helped break that belief. Through storytelling, Aman not only took an interest in looking at books, but was listening to more stories, was able to retell them, comment on the characters and dialogues, and even read on his own.

The belief that all children can learn was fortified with this experience. Aman showed me that if each student is treated as a perfectly capable individual, he/she will be interested in learning. Everyone wants to be able to do things well. All they need is our support and confidence in them. One of the surest ways of doing this is by bringing more stories to the classroom, from books and our everyday experiences – stories from teachers and students. From these everyday stories to telling stories or reading from storybooks children select, teachers can get a chance to connect with each child. Stories give space for genuine conversation, questions, expression of doubts, fears and other emotions and enrich the imagination.



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Education is the process of making children strong and sensitive human beings so that they can lead a meaningful life. They should be able to work for the betterment of society and see their role in bringing positive changes globally. So, every teacher should be aware of the fact that while the child in his/her class is an individual, she/he is also a part of the society and needs to develop accordingly.

Whenever I go to schools and meet fellow teachers, there is one thing that always pops up: there are 'some' children who cannot learn. And when you look for reasons, the kind of reactions that emerge seem to defy the fact that these children are human beings. The child is a part of this very society, who interacts here and develops mentally and socially. Then how is it possible that some children are not able to learn?

If we look at the beliefs related to the learning of children, we find that our social system is responsible for it. Our society has a particular type of structure that consists of groups of people belonging to various castes, religions and economic backgrounds and on the basis of this, their learning capacity is decided from the time they are admitted to the school. When this belief penetrates the hierarchy of society the focus on teaching and learning dilutes and attention gets shifted to the socio-economic conditions of the children and our efforts decline.

When it comes to children, I can say from my experience that we place them at the bottom in the hierarchy of society, perhaps even below women. We often hear in schools that 'this child will not be able to do anything; he does not have the capability'; or, 'he will not learn like this, beat him black and blue'. The expectation in society that our child should get better marks than the other children, the comparison and the humiliation create a suffocating atmosphere in which many lives get buried. In such an environment, we do not take the initiative to teach and learn. Children are an important part of human society; they also have all the human qualities that are there in adults. Then why is it that some children are not able to

learn?

Economic disparity further widens this gap. Even today, a large section of our society hardly gets two meals a day and there is a lot of struggle even for that in some families. The children from such families feel that taking care of the needs of the family is their responsibility and they begin to work for it. Many children help their families and are absent from schools during the time of paddy harvesting, peas picking or potatoes digging.

At this point, I want to share an incident. Some of us used to go to a school in Uttarakhand on a regular basis for the preparation of *Baal Shodh Mela* and would meet the members of the community. We interacted with them frequently. Their faith grew deeper in us. They told us that it is for the first time that someone has come to meet them and is talking about their life and profession. Most of the members of this community beg for a living. They said that usually, people do not want to give money to adults, so they have to take children with them against their wish. They also said that they understand the value of education.

Premchand wrote in 1936 that, 'There is no section of society that does not know the importance of education, so there must be a real constraint that they are not sending their child to school.' I am not justifying children's absence by saying so, I am only trying to understand it in a sensitive way. Is there a way by which we can adopt a different process with such children? We should do something so that children consider the school as their own. We should understand and respect the ways their family and community earn money for their living. Some processes may have to be done outside the classroom, but we can make those a part of it and new initiatives for teaching can be taken up.

It is necessary to change some of our beliefs as well as find some new avenues, for example:

- First of all, we have to stop comparing children; or form an opinion about them and label them on the basis of their social and economic backgrounds.

- Every child has the ability to learn irrespective of their background, provided they have similar, varied and enjoyable ways of learning. Efforts should be made to see that the schools accept all children, make them a part of their setting and break all the old beliefs. We have to believe that children will learn if they get proper respect and support.
- There is a need to pay more attention to the process, rather than the number of children who get success by memorising question-answers. It is more important to develop creative thinking in children. And to do this, various types of teaching activities can be started in the school, such as connecting the subject to the environment of the children, inviting community members in the classroom for interaction etc. We need to encourage children and the learning process both. The experiences with some of our schools suggest that this process not only helps to further the learning process of children who were left behind for some reason but also encourages

their enthusiasm to attend school. The biggest disappointment is that we do not take part in sports with a spirit of sportsmanship but start competing and rivalry. The form of sports will change if one participates in it for happiness and enthusiasm. It helps in developing brotherhood and reduces social distortions. It also weakens the shackles of caste and gender.

- We must believe that the teaching profession is different from all other professions and teachers should treat children with sensitivity. The teaching profession is the process of preparing a new generation and the community sends children to school having faith in that process and thinks that the next generation will move ahead from where it is today.

So, if we all have such enormous responsibilities, then obviously our scope of work is also huge and for that, we have to continue to work together to push ourselves forward, only then we will be able to create a sensitive, rational and reflective society.



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Four Operations for Every Child

Swati Sircar



Basic numerical skills are a must-have in today's world. No matter what one does, the ability to add, subtract, multiply and divide is crucial and needed for everyday matters. Naturally, these take up a large portion of the math syllabi at the primary level. However, many reports including the Annual Status of Education Reports (ASER) indicate that our children are not picking up these skills adequately. What can be the reasons?

Reason 1: Numbers, by nature, are quite abstract. They do not exist in nature directly. For example, one can show five fingers or clap five times or count five points from a discussion, but one cannot show five. 5 is the numeral, a symbol, that represents five (and the symbol changes with the script).

Reason 2: Children are expected to learn this abstract concept of numbers at a very early age when their ability to handle abstract ideas are yet to form.

Reason 3: The teacher, who introduces children to the world of numbers, needs to be comfortable with them himself/herself.

Reason 4: These teachers themselves may not have experienced good mathematics pedagogy as children and neither has the teacher education system in our country enabled them to help their students.

As a result, we see two main issues:

Issue 1: Children are unable to solve word problems. Part of the reason can be inadequate reading and comprehension skills. But many children are unable to translate the situation given in a word problem into a math expression. They don't know which operation to use when and often depend too much on keywords.

Issue 2: Children make mistakes in computations involving multi-digit numbers and the standard algorithms. Subtraction involving double-borrowing, like $500 - 283$, is more difficult and widely encountered in real life, say, how much change do you get if you give a ₹500 note to buy something worth ₹283. Division seems to be most problematic across the board as per ASER reports and our observations. A lot of this is due to a lack

of understanding of place value. So, what can be done?

There are three main points we would like to emphasise in this article. The reader can explore the resources mentioned in the reference for further details.

Meaning-based approach

Step 1

First, before introducing any operation, check the *children's understanding of place value*, especially if they are able to connect a given quantity (say, the number of grains in one spoon of rice) with the number name and the numeral. The basic idea of place value (or how we write numbers now) is to make a bundle whenever we get ten. So, for any number \geq ten, the numeral is a combination of (i) how many bundle(s) and (ii) how many outside bundles i.e. loose one(s). These bundles are called tens and the loose ones are called ones (or units). The moment we reach ten bundles, we have to make a bigger bundle, and we call it a hundred. Similarly, when we get ten hundreds, we make an even bigger bundle called thousand and so on.

To make sense of this bundling and decipher the writing system, known as place value, it is a good idea to have something that children can bundle. Small sticks (from twigs or *tilli*, broomsticks or toothpicks) and rubber bands work very well since these can be bundled and unbundled quickly.

Second, introduce each operation with suitable situations and word problems along with some materials to animate the situation. This should be followed by introducing the relevant symbols i.e. =, +, -, \times and \div and some practice linking situations or word problems with the corresponding math expressions. The class I NCERT math textbook does a good job of introducing addition and subtraction, while the one for class III does the same for multiplication and division.

Third, get children to create word problems for given expressions like $38 + 14$, $72 - 55$ etc. This helps children to be creative, fosters their language development and helps them understand what

situations can be represented by which operation. It also completes the cycle (Fig. 1) by going from expressions to situations. In addition, the word problems generated by one group of children can be given to another group to solve.

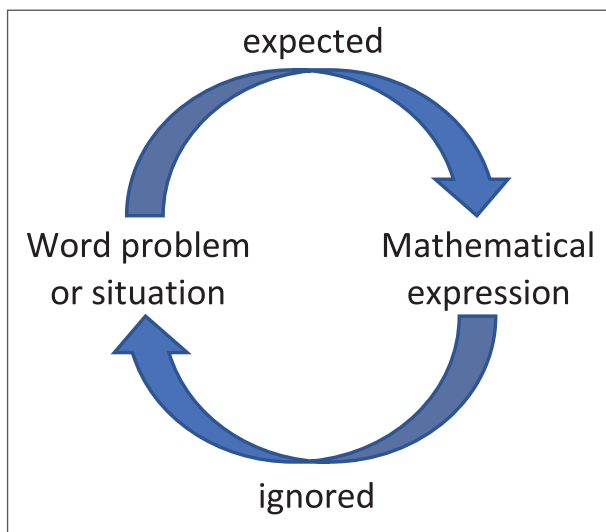


Figure 1

Fourthly, change the situation to emphasise the connection between operations.

For example, consider the situation: you have 8 flowers and I have 5, then how many flowers do we have together? This maps to $8 + 5 = \underline{\quad}$, an addition expression. Modify this to: you have 8 flowers and together, we have 13 flowers, then how many do I have? This results in $8 + \underline{\quad} = 13$ which is an addition equation. Using role-play, the other child can ask a similar question resulting in $13 - 5 = \underline{\quad}$? So, while together does imply addition, it may be an expression ($8 + 5$) or an equation ($8 + \underline{\quad} = 13$) resulting in subtraction ($13 - 8$). This helps children understand the situation as a whole and be not overly dependent on keywords.

More importantly, it emphasises how every addition can be represented as two subtractions. A similar approach can be taken to link multiplication and division.

Step 2: Algorithms – when, how and why

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Instead of jumping into the standard algorithm immediately after introducing each operation, let the children figure out different ways of solving problems. Solving sums and differences with numbers (< 100) can be aided by the 10×10 board of numbers as well as the ganitmala modelling the number line. For example: $37 + 25$ can be solved in

any of the following ways:

- $37 + 10 + 10 + 3 + 2$ i.e. $37 \rightarrow 47 \rightarrow 57 \rightarrow 60 \rightarrow 62$
- $37 + 3 + 20 + 2$ i.e. $37 \rightarrow 40 \rightarrow 60 \rightarrow 62$
- $37 + 30 - 5$ i.e. $37 \rightarrow 67 \rightarrow 62$

Note that these are very different from the standard algorithm which separates the ones and the tens

and adds the ones before adding the tens, that is,
 $37 + 25 = (30 + 7) + (20 + 5) = (7 + 5) + (30 + 20) = 12 + (30 + 20) = 2 + (10 + 30 + 20) = 2 + 60 = 62$

The need for standard algorithm emerges as we add more than two numbers, for example while finding the total of a bill, or when we add bigger numbers (≥ 100).

Next, help the children construct standard algorithms with the help of suitable manipulatives. Bundle and sticks work very well for addition-subtraction with number < 100 . Children should be asked to write down each step as they work with the bundles and the sticks to make it effective.

2D base-10 blocks, known as *flats* (hundreds), *longs* (tens) and *units* (ones) or FLU work very well

for numbers < 1000 as well as for multiplication and division. The reader can find more details in the reference section.

It is also important that children get answers to their questions regarding the standard algorithms. For example, why does division start from the left-hand side while the remaining three start from the right-hand side? (Check the second reference on division). Children should be allowed to figure out which method they prefer and why. For example, $376 + 285$ can be done on the number line in two ways, left to right i.e. starting with the hundreds or right to left i.e. starting with the units (Fig. 2). While right to left involves no re-write (in the standard algorithm), left to right provides as with better estimate of the sum after the first step.

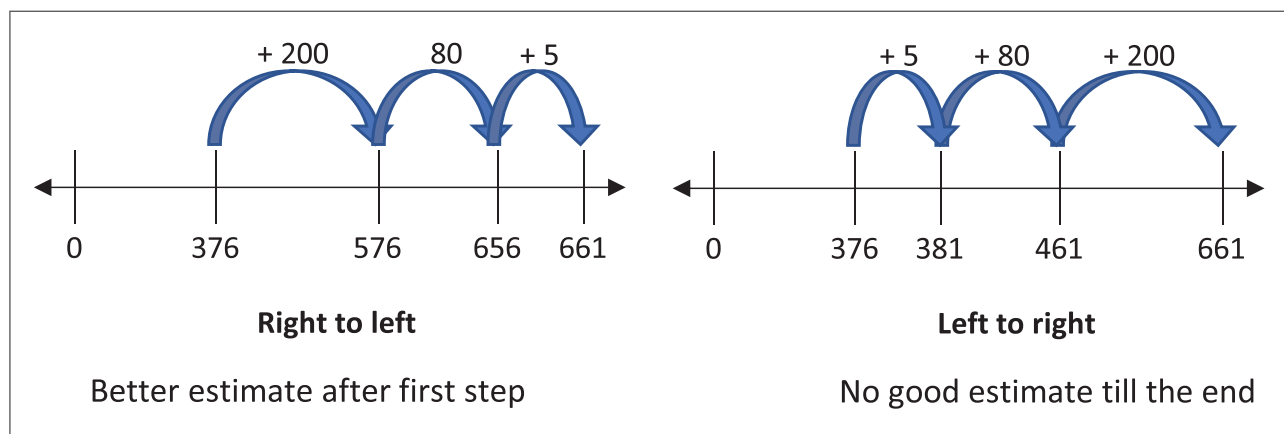


Figure 2

Step 3: Practice

While meaning-making is crucial, there is no substitute for practice. It is needed to gain mastery of any skill. Automatisation of addition (and subtraction) with single-digit numbers as well as quick recall of products of single-digit numbers smoothen the path of gaining proficiency in computation. Ten-frames help in automatisation of addition facts with single digit numbers, especially for numbers ≥ 5 . Likewise, multiplication tables should be constructed by children. Also, they should be taught how to recall products involving 6, 7 and 8 using tables of 10 or 5, for example

$$6 \times 8 = 5 \times 8 + 8 = 40 + 8 = 48 \text{ or } 8 \times 7 = 10 \times 7 - 7 - 7 = 70 - 7 - 7 = 63 - 7 = 56$$

This enables children to find the products without revisiting the table from the beginning. 9 times tables can be constructed this way and children discover various patterns in it. So, products involving 9 are easier to recall.

Practice can be made interesting in a number of ways. The Wall activity and the Random Digits game are few such options. The Thinking Skills pull-out is rich with several explorations which automatically provide a lot of practice along the way.

We would like to end this article with two often ignored areas:

- (i) operations with zero; and,
- (ii) some properties of these operations

It is important that children consider zero not just as a place holder but a number. The best way to achieve this is to consider how this number takes part in the four operations. NCERT and other textbooks have included addition and subtraction with zero. However, multiplication with zero is often ignored. This omission generates the false notion that the product is always larger than the whole numbers that were multiplied. Division with zero is understood even less. $0 \div 4$ can still be explained, but division by zero needs to be examined more

closely. Consider $6 \div 0 = \underline{\quad}$. This can be written as a multiplication equation i.e. $\underline{\quad} \times 0 = 6$. Clearly, there is no number that can fill this blank. On the other hand, consider $0 \div 0 = \underline{\quad}$ as the equation $\underline{\quad} \times 0 = 0$. Now, every number we know works! How can we choose one number from so many? Therefore, the situation is exactly the opposite of $0 \div 4$!! Therefore, division of any number, zero or non-zero, by zero is undefined.

Commutative, associative and distributive properties of addition and multiplication are usually glossed over at this stage. However, they are crucial for standard algorithms and they can be explored in a child-friendly way. The splitting of 2-digit numbers in tens and ones and combining for the standard addition algorithm (see $37 + 25$ mentioned above), involves several applications of the commutative and the associative properties of this operation. Multi-digit multiplication on that other hand uses associative and distributive properties directly.

$4 \times 30 = 4 \times (3 \times 10) = (4 \times 3) \times 10 = 12 \times 10 = 120$: We thus use the associative property of multiplication while describing how to find such products. Also, it is a good idea to let children explore if these properties hold for subtraction and division. Distributivity does hold in cases like $(40 - 12) \div 4$ (Why?).

The issues regarding children mastering the four basic operations have been known and are unfortunately continuing. But it need not be so because the solutions have also been known for a long time. While changing a large system like teacher education – pre-service and in-service – take a lot of time and effort, we hope this article can provide some guidelines for willing teachers to try something different. It would require exploring the resources indicated below and modifying pedagogical practices. But we can assure that the effort is completely worth the trouble as experienced by many teachers across the country.

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Wall: <http://teachersofindia.org/en/activity/brick-wall-math-game>
Random digits: <http://teachersofindia.org/en/activity/number-game-random-digits>



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Vidhya Das

The children were bouncy and full of energy and did not seem inclined to being confined to their seats, though not all of them were running around. Just five or six of them were being playful and noisy. As I went and sat beside the quieter ones, the playful ones came to show what they had written. Many of them were in such a hurry to get my attention, they had not completed their work. I told them very firmly that I would come to look at their work when their turn came. The littlest one tried to pull me to her seat. Another child explained to her that she should not do this, as I was their *Guruma* (head teacher), and the little one stopped, and they all went back to their places.

I was in class II of *Aragamee* School which caters to first-generation school children, generally referred to as first-generation learners, in a tribal region. Children become learners from the moment of birth. School education for these children is a challenging task as their parents have never gone to school. In the government primary schools, they are very often rendered almost completely submissive and docile as teachers try to force and coerce academic skills on them. At other times, there is almost no learning, as teachers decide that they cannot learn and give up. It is also not rare that both situations occur simultaneously: there is almost no learning and, along with this, children are also forced into a sense of fear, inferiority and submission. *Aragamee* School seeks to help these children learn without fear or stress.

The many difficulties in helping first-generation school children build academic skills are being increasingly recognised today, even though the system still focuses mostly on enrolment, dropouts and toilets. These quantitative indicators have their importance if we did not treat most of them as the end we are looking for in education. For example, we now have near hundred per cent enrolment rates as per government records, but what is the point of enrolment if the learning levels are dismal? A large proportion of children are not able to read

even at the end of elementary school! Most others in that stage have only very rudimentary reading abilities.

Most school learning begins only after one becomes a fairly fluent reader. If one does not become a fluent reader, with fair comprehension of what one is reading, then school learning does not begin, as almost everything in school is from books. So, learning any subject depends on reading. If a child is not able to read well, in time, she is denied equal opportunities. Dhir Jhingran¹ underscores precisely all this, pointing out that reading is a foundational skill on which all formal education depends and that any child who does not learn to read early and well, will not easily master other skills and knowledge and cannot do well in school. He further points out that children who learn to read later, or read slowly, may avoid reading, are unable to understand the textbooks of their grade thus, developing negative attitudes about school and are less likely to complete school!

Thus, often first-generation schoolchildren (FGS) tend to drop out earlier even if they do join school. The difference becomes more marked in elementary school. Reports indicate that in school, FGS children have lower attendance, less consistent performance, interrupted studies and low self-esteem. Studies also report a range of problems faced by first-generation students regarding the curriculum, difficulties in completing homework, adjusting to the timetable and teaching. Compared with non-FG students, more than twice the number of FG students face such problems with school learning. It is also reported that none of the families of FGS children have an adequate standard of living. However, what is undeniable is that poor standards of living and the ensuing struggle to make ends meet for families of FGS children that lead to several constraints and hurdles in school, as these children may have to take time off studies for work, may not be able to afford course material, stationery and private tuitions classes.

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Finally, FGS children face an adverse environment in school as compared to their more fortunate peers. Several comparative reports indicate that a greater number of them perceive higher levels of neglect and apathy from their teachers and principals. This affects self-esteem as also aspirational levels, which could be one of the reasons for higher dropout rates. This, then, becomes a vicious circle: FGS children do not get adequate academic support from their parents, so are unable to have good school education and so cannot help their own children do well in school and so on. With girls, the situation is even worse and is evidenced in tribal girls and women being the least literate section of the population.

How can one break this? In most non-first-generation families (in which the parents and/or grandparents have completed at least high school), the adults teach the child the first skills for school learning including reading, counting and numbers. Most often, this is done through one to one teaching at home, either by a parent or an older relative and could take the form of teaching the child alphabets, encouraging her to recognise and write the letters of the language, teaching spellings of objects, names of family members. In addition, there the presence of the printed word: books, newspapers, calendars with parents and other members of the family reading, snippets of interesting news being read out and so on. The persistence, guided by parental concern and care, in addition to the overall ambience more than any identified pedagogy helps the non-FGS child pick up reading and writing by the time she starts school and has a clear advantage over her FGS peers. *Aragamee's* experience indicates that this helps even second-generation school children have significantly increased learning levels in early grades as compared to their FG peers.

Teachers are, by and large, not equipped to teach children these skills. There is very little of the pedagogy of teaching reading in most teacher courses. Nor are textbooks for kindergartens and first grades designed to help the child develop the skills for fluent reading.

Given this background, the focus in *Aragamee* School has been on addressing the complex set of problems affecting school learning for FGS children. This evolving pedagogy seeks to help teachers understand the constraints and challenges faced by the children, perceive the various issues they have in learning (including attendance, health, comfort

levels, making sense of what is being taught, engaging, focusing attention), and develop the approach and methodology to address these. The pedagogy goes beyond the traditional approach and methods, encouraging teachers to look for solutions, while also seeking to help with the paradigm shift to understand and practice radical new approaches.

One such shift has been made in the area of language teaching. Language teaching in school begins with teaching a child to read and traditionally, this requires a child to memorise alphabets with their various shapes - a herculean task for a child. It means memorising the form and sound of some 50 odd symbols which are quite meaningless until the learner understands the relationship of the words she speaks with the letters. Much of early school learning is hampered by poor literacy primarily because literacy teaching begins with forced memorising of alphabets and does not engage the cognitive faculties of a child. Developing reading and language skills in a child through alphabets or alphabet centric methods is a negative and uphill task, as the alphabet symbols relate to nothing the child knows.

When this method proved its lack of efficacy over time (we had wasted years and years of many children by then) a shift was made to help children learn through word alphabet connections, like A for apple etc. Many rhymes have been written to facilitate this in languages with phonetically more detailed (and perhaps more precise) scripts than English yet, the learning to read did not happen as teachers found these methods extremely difficult to teach. This method also lacks a clear-cut logic of learning, as the letter 'A' only symbolises the first alphabet of the word and the child finds it difficult to make a connect with the phonetics of the rest of the letters in the word.

We then sought to address this through the whole language approach. When a child comes to school, she knows one language. This means she has a vocabulary of at least 1500 to 2000 words and knows how to select and sequence this vocabulary to convey, as well as understand, a whole range of meanings from commands to questions to emotions, narration of events, stories, etc. She can understand, enjoy and sing simple songs and rhymes, discern past, present and future tenses and understand and convey abstract meanings like anger, sorrow, happiness, etc. She can also remember names of family members and

villages and relate to these to identify the place or individual. These are skills which are far more complex than those required for basic literacy or reading and writing.

We asked ourselves: can one build on this knowledge and ability of the child when she begins school? Can the teacher help a child who is beginning school, progress from drawing simple shapes of flowers, vegetables, etc. on her slate to rhymes and action songs, to names familiar to her beginning with her own name, then word pictures, small sentences about herself and other things from her daily life, then, writing down rhymes familiar to her? If a child begins learning by writing out her name and then the names of her parents, siblings etc., she has an immediate connect with the school, the class and has a sense of excitement. When she goes home and writes these out for her family members to see, the positive affirmation she receives, makes the class learning immensely more meaningful, encouraging her to come back for more such learning.

These ideas were discussed over several sessions with the early grade teachers. The problems in helping children move towards effective literacy, the reasons for them, the children's response and the language problems tribal children face when they come to school formed the topics for formal and informal discussions for many months. Teachers developed vocabulary sets and teaching material to help children begin to learn through familiar words, rather than rote memorisation.

Yet, in the classrooms, teachers went back to the traditional alphabet-centric methods, leading to very little change. Why was it difficult after so much of discussion and understanding to change to a more creative, child-centred approach? It was found that teachers could not find the resources in this approach to engage the children every day. So, they fell back on memorisation. Some teachers did not believe that it was possible for children to learn without first learning all the letters. There were also classes which were bi-lingual, wherein almost half the children spoke a tribal language and did not understand the state language, Odiya.

Following further discussions, everybody got together and designed a book which could help teachers transition to a more child-centric teaching. In addition, teachers (whose first language was a tribal language) were appointed to teach in those classes which had tribal children. Several participatory training sessions were held, where

teachers shared how they were using the book, how they were helping children with different mother tongues use the word and picture games that they had improvised.

In addition, classroom problems were also discussed. These sessions also helped to identify resources within the children. Some of the observations that the teachers shared were the eagerness of children to support each other, for example, a child who had finished her work would often turn to help her companion do hers. They were also very willing to learn from their peers and listened to their peers more than to their teachers! These discussions helped to understand children better, as also improve our teaching and TLMs. Following the first book, a workbook primer was designed that would help engage students in constructive and creative ways and enable teachers to take up activities that could help children progress gradually towards literacy and reading.

The workbook which served as a pictorial primer in class I proved to be a great attraction for the children. Filled with colouring and drawing activities and word games, children were almost instantly engrossed in the most constructive ways. The primer helped the teachers as well, as it provided them with ideas for further games and puzzles to take up and blackboard activities in the classroom. Teachers found that children normally required two years to complete exercises in the primers, at the end of which they would have picked up the basics of reading. In the subsequent classes, steps were taken to improve children's reading abilities through reading aloud, blackboard reading, and reading and comprehension exercises.

All children do not learn at the same pace. At the Agramee School, every child is encouraged to learn at her own pace and, as mentioned above, help her peers learn as well. This creates an ambience of collective effort where no child is left out. Teachers do not explain lessons to the children, but help them understand the lessons in their textbooks by asking questions, identifying words, doing exercises like visual memory testing where paragraph-wise, self-reading by children is followed by the teacher calling out words for the child to spot, etc.

All this has helped in building up the reading and language skills of the children of *Agramee School* right from classes I and II through easy

and fun methods. Thus, now, children are eager learners in all subjects as they find it a joy to read and pursue various subjects and topics of their choice and interest. Equally, they have also become eager writers, keen on expressing themselves and reporting events and experiences from their school life through an annual report and a newsletter, *Dangar Katha* which provides glimpses of the children's lives in the village, their imagination, and longings and a vision of things as children see them. At a suggestion from the teachers, they have also begun to illustrate their writings with vivid and colourful drawings. In the area of drawing and illustrations, we are proud to say that *Aragamee* School has allowed the children's imaginations to run free and bloom as with very little teaching.

This experience has also helped *Aragamee* School reach out to government schools. In this effort, youth trained in the approach and methods, as above, were placed in eighteen government primary schools to improve learning in early grades. With prior experience, a lot of emphasis was placed on training and understanding basic concepts. The workbook primer that was provided to the children and trainees also had several observation sessions

of early grade teaching in the *Aragamee* School. The efforts taken over a period of two years in three tribal districts of Odisha: Koraput, Rayagada and Nabrangpur had outstanding results. According to independent studies, 83% of children could read by the end of class II.

While this experience has provided us with a really large learning field, one of the key lessons we would like to emphasise is the need for support and effective training for the teachers. There is a great need to listen to teachers, help them understand their problems and provide them with adequate support to move towards the solutions. In the government system, teachers are subordinates, required to follow the rules of the service and obey their seniors. This proves to be a major hindrance for developing good teaching methods and thereby, improving learning outcomes. It is essential to go beyond this and help government primary school teachers enter creative spaces with knowledge and skills. This might seem like an impossible idea given the system we have today. But perhaps if we could begin in a small way and expand our reach and achievements, then we could progress towards quality education for all.



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Magazines as Learning Tools

Vinatha Viswanathan and Ruchi Shevade



A brief history of children's magazines

Periodicals with children as their target audience can be traced to the 18th century. These magazines were mostly published in Europe and North America, and the material consisted of morals and instructions on how to live 'good' lives. The nature of the content switched to stories, folk and fairy tales in the 19th century and the modern children's magazine and comics came into being in the early 20th century. This evolution of children's periodicals followed that of the notion of childhood in society, as well as, the recognition of the potential profit in this sector. In India, the early half of the 20th century was when children's magazines began to be published. Amongst the earliest children's magazines were *Anand* (Marathi), *Sandesh* (Bengali), *Balarama* (Malayalam) and *Chandamama* (Telugu and Tamil). From the 1970s onwards, magazines for children found a firm footing in India.

Be it about providing a print-rich environment to support language learning or the discussions in academic spheres on learning resources, magazines have always been mentioned as an important educational tool. Experiences of teachers across the globe lend credence to the idea that magazines, even comics, can be powerful learning tools in the classroom. However, much of the support for this idea is anecdotal as systematic studies of children's magazines, their uses and impact are few. In spite of being widely acknowledged as learning tools, magazines remain amongst the less-used classroom aids.

In this article, we discuss what we have gathered from a survey of literature on how children's magazines can play a role in classroom learning process. We will rely heavily on the testimonials of several teachers in our discussion. We will also talk about how *Chakmak*, a Hindi science magazine for middle school children has been used as supplementary reading material.

Why use magazines in classrooms?

Flipping through a magazine gives one an overview

of the richness and diversity in content that is reflected in its text, illustrations and design of each article. Short stories, poems, comic strips, news snippets, amazing facts, a variety of puzzles, articles, activities and contests - there is a wealth of fiction and non-fiction fare in children's magazines. There is something for diverse reading and comprehension levels. The information is also up-to-date and relevant as magazines are published at regular and mostly, short intervals. A common thread that runs through all this content is brevity – magazine articles tend to be short, manageable chunks of information. And the best part of reading a magazine is that you do not need to read it all; you can read the parts that interest you.

Some magazines focus on one broad topic (such as science, or the environment) examples of which include *Brainwave* and *National Geographic Kids*. Some others, *Chakmak*, *Kishor* and *Champak*, offer a wider range of topics for their readers. In either case, students find them attractive for the reasons mentioned above and engage with them. And teachers find them attractive as classroom aids for these same reasons and also because they can create lesson plans that fit one or a few classroom periods.

Children's magazines and learning to read and write

For the rich collections of stories and poems that these magazines offer, they can be relied upon as constants in a language classroom. Depending upon the length, complexity level, topics and genre, stories and write-ups can be used for read-alouds, storytelling, reviews and literary discussions and even theatre for various age groups.

While reading is one skill that can be practised with the help of poems and rhymes, there are intangible outcomes too. For their form, many of the children love poems and rhymes. As Prof. Krishna Kumar has said they are 'a resource of highly creative and energetic forms of language'. Poems allow a child to play with the language. Magazines bring a diversity of poems to children that may not be a

part of traditional rhyme books or textbooks. For example, in *Chakmak* we bring out children's poems not only written in Hindi but also many poems from overseas, translations of English and Iranian poems. Some of the compositions published in children's magazines have proved this for having witnessed repeatedly high energy responses by the children whenever recited. *Alu Mirchi Chai Ji* a poem (by Rajesh Utsahi) published in the first issue of *Chakmak* is such an example of a poem that became very popular. This poem has, over the past several decades, found itself in several textbooks both government prescribed, as well as private.

When used for recreational reading, magazines provide respite from the tedious reading that textbooks can often be. Attractive covers and diversity of content are probably the reasons that teachers have found that leaving magazines lying around in classrooms helps the most reluctant of readers to pick them up and peruse them. This is true even at the kindergarten levels. This is the first step towards getting interested in printed matter. Many children, especially in the early grades, find books intimidating for various reasons. Some of them have not had much contact with books, textbooks or other kinds. Others see their classmates reading easily and are not sure that they can achieve that skill. Once these children pick up magazines, printed matter does not seem as daunting. Some teachers have found that given this motivation early on, these children go on to be good readers.

Magazines also encourage children to write. Teachers have felt that the stories and other articles children read in magazines give them ideas for writing. They even use the pieces in magazines as models for writing. Magazines often encourage readers to write to the editor and send in their answers to puzzles and contests for a prize.

***Chakmak* as a supplementary tool**

Chakmak, a children's science magazine, was conceived in the early 1980s by the Eklavya Foundation as supplementary reading material for middle school children. The need for such a magazine emerged from the experience of those running Eklavya's Hoshangabad Science Teaching Programme (HSTP) in schools in Madhya Pradesh.

In those initial years, *Chakmak* was sold in the many rural government schools of HSTP at subsidised rates. Children loved reading the magazine and sent in questions, poems, art, stories, and anecdotes

because right from the beginning the magazine has reserved several pages - *Mera Panna* for contributions by children. The November issue to commemorate Children's Day for many years, were entirely *Mera Panna* issues.

In this way, *Chakmak* encouraged the penmanship and the curiosity of children and helped them express themselves on paper by not using conventional standards of what constituted 'good' art or 'proper' writing. The creativity and thinking of a child, her need to say her piece was the yardstick for finding room in *Chakmak*. There was no 'one' Hindi that was deemed acceptable and the diversity of languages and styles was not tampered with. What this did for the confidence of children in these schools, many of who were first-generation learners can only be imagined.

Mera Panna pages are often the first ones that children read in the magazine. They cover a variety of events revolving around the daily lives of children and in a variety of versions of Hindi. As a society, we are still far from an acceptance of home-languages and dialectic variations of the child in formal settings, even in the classroom. This is despite the fact that such acceptance can play a significant role in deciding a child's engagement in the classroom process and their retention in the school system. Initiatives such as *Mera Panna* may thus, play a significant role in this much-needed assurance for children.

In the early years of *Chakmak*, teachers also discussed the various articles in the magazine in their classes and attempted some of the activities, such as those in *Apni Prayogshala*. They gave constant feedback to the editorial team of *Chakmak* that helped keep the magazine relevant and useful as an educational tool. Over the years, the science content in *Chakmak* decreased and another change was in its readership – from being primarily read by children in Hindi medium government schools to having a larger proportion of those in English-medium, private schools. Today, *Chakmak* is still being used in schools, libraries and activity centres at various organisations, but largely for the interactive columns that have children write to us or send us their artwork.

Kyun-Kyun is a column that was started over a year ago. In this column, we ask children to respond to questions that range from why we fart to their views on what is considered work and who all in their families should be paid for it. Questions also include ones such as, why does a standing cycle fall,

who in their family do they think of as having the most freedom and why, and if they wanted to make someone disappear who would that be and why. Questions such as these that make children observe things around them, reflect on them and approach the answer from different perspectives is after all, what marks the beginning of most scientific and philosophical enquiry.

We also have a column developed by the Nature Conservation Foundation that encourages children to go outdoors, observe and connect with their natural surroundings. Topics focus on groups of animals or plants (monkeys, bamboo) and on concepts (mimicry, sounds around us). The response to these is limited, perhaps underlining the need for us to work with schools so more of them take up these activities with their students to help them connect better with nature.

Overall, while the content of *Chakmak* acts as a mirror for its readers to look into the world today, it is most definitely a window for us adults, to peep into the worlds of children, to know what they think about, what bothers them, and how they look at the world around them.

The potential of children's magazines including those such as *Chakmak* as tools or sources of learning is great. However, they are amongst the ones less explored as pedagogical support. No doubt there are other unorthodox learning tools that do not find a place in orthodox classrooms, like movies, film posters and advertisements. Today, as we talk about and support the need for a variety of learning materials, as we acknowledge the diversity in students' learning styles and preferences, we should add magazines as well as all these other forms to the pool of pedagogical tools that we use.

For a list of references used in the writing of this article please write to ruchi.shevade@gmail.com



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Indira Vijayasimha

Student errors are often a source of irritation, frustration and even anger to teachers. Many of us have memories of our schoolwork heavily marked with red ink highlighting our mistakes and making us feel fearful, ashamed and stupid. However, errors need to be seen as part of the learning process. They can provide many insights to both the teacher and the taught.

'Aside from the direct benefit to learners, teachers gain valuable information from errors, and error tolerance encourages students' active, exploratory, generative engagement. If the goal is optimal performance in high-stakes situations, it may be worthwhile to allow and even encourage students to commit and correct errors while they are in low-stakes learning situations rather than to assiduously avoid errors at all costs.' Learning from Errors Annual Review of Psychology*

Eleanor Duckworth in her classic book, *The Having of Wonderful Ideas*, has this to say '...making mistakes and correcting them reveal and give rise to a far better grasp of the phenomenon than there would have been if no mistakes were made at all.'

Would teachers gain a better understanding of students' thinking if they systematically studied students' mistakes? Can teachers help students learn from their mistakes by encouraging them to acknowledge and analyse their errors? These are some of the questions explored in the book, *The Reflective Learner*. It is an insightful book that documents the experiences of four teachers as they examine the errors made by the children they teach. In the process of their exploration, the teachers also begin to reflect upon their own practice, assumptions and conceptions about students.

The book offers plenty of food for thought to the engaged teacher and at the same time is refreshingly free of jargon. As Kamala Mukunda puts it in her foreword to the book, 'The word *psychology* is everywhere present in the book, but never mentioned (except as part of a referenced title!).' You will not encounter words like, 'monitoring

comprehension', 'protocols' and 'control groups' - words that typically pepper academic research papers in education. Such research papers would probably earn their authors academic credits, degrees or a step up the ladder in academia, but would not offer much to the busy practising teacher. Therein lies the beauty of this book - it is addressed to the practising teacher and has plenty to offer him/her. After reading the book, I hope that many more teachers will be enthused enough to take up similar explorations in their own classrooms and in the process find their jobs much more interesting and deeply satisfying.

The book presents case studies of action research undertaken by two English teachers and two Math teachers and presents details of their explorations and findings in a lively and relatable manner. Each teacher's work is narrated in a separate chapter. While the work of three teachers is narrated by Neeraja Raghavan, one of the teachers, Kanchana, has written about her work in the form of a research study. These four chapters are preceded by an introductory chapter that lays out the context and backdrop. A concluding chapter follows the four narratives and serves to offer a 'bird's eye view of the entire process'.

As Kanchana puts it, the book amply illustrates how 'teacher-researchers transitioned from pointing out errors in a student's work (in order to teach him how to avoid them), to analysing errors for a better understanding of the student's way of thinking.' Each of these four teachers attempts to help students become aware of their own thinking and be able to catch their own errors, thus empowering them to take greater charge of their own learning. As a result of these teachers' action-research, students have emerged more confident about their capabilities and many of them have developed greater interest and engagement with the subject.

Once these four teachers - Prerna, Michael, Gopi and Kanchana - began seriously studying children's errors they seem to have broadly arrived at classroom strategies based on these. All of them

inevitably began categorizing student errors and then began noticing patterns. They then tried to draw students' attention and interest towards the errors. Finally, they gave students plenty of time and practice to spot errors, analyse and overcome them. Some errors seemed to occur more frequently among students, while individual students seemed to have characteristic error patterns.

Both Prerna, who taught English to class V, and Kanchana, who taught Maths to classes IX and X, helped students analyse their errors using a scheme for error categorization. Michael, who taught English to class VIII, had an experience similar to Kanchana's where students needed support to spot their errors and categorize them. Michael came up with a strategy to indicate the errors on the margins of students' work thus, providing clues which helped students pinpoint the error and correct it. Kanchana held individual conversations with students while asking them to categorize their errors. It was interesting to note an instance of an error categorized one way by her that was changed after discussing with the concerned student.

In all four cases, both teachers and students seem to have developed greater insights about their thinking process. Gopi, who taught Math to classes VIII, IX and X has done a fascinating exploration about how children think through math problems in a series of nine 'experiments' that formed his action research. He broke down the solution process into four stages and had students working systematically to find out how they tackled each stage. The details of his work make for fascinating reading. Helping students slow down enough in order for them to avoid superficial errors and also think about the problems systematically was a common strategy adopted by both the Maths teachers. Both of them seem to have largely succeeded in helping students think about their thinking and this, in turn, resulted in students becoming more engaged learners who developed positive attitudes towards Math.

Interestingly, as the teachers engaged with student errors and began seeing these as windows to students' thinking, they also became more aware of their own thinking about the subject and about students. While analysing sources of student error, Prerna discovered that sometimes errors could arise from the way a teacher's question is worded. She found out, to her discomfiture, that she herself had difficulty in answering a question that she had set for the students on a test! Michael became

aware of his assumptions about individual students and was able to re-assess these in the course of his action research. Towards the end of his research, he felt that his own use of the English language improved!

Each chapter in the book tells us a lot about what is going on in the minds of teachers and students as they work together to achieve learning goals. The book describes how teachers came up with strategies to help students develop and value metacognitive skills. Students began to realize that they could learn with greater understanding and that errors need not be something to be ashamed of and that they themselves could minimize errors. It may seem counterintuitive to see error rates go up as a student makes progress. However, this is what Michael noticed with one student who became increasingly more confident with his writing and started using an expanded vocabulary while also constructing complex sentences rather than sticking to simple ones. He rightly concluded that the increased number of error in this student's case was a sign of progress.

The concluding chapter provides an overview of some relevant literature, but even more importantly, it is an attempt to encourage more teachers to become researchers and try out ways to help students become reflective learners. This chapter clearly lays out the conditions required for a healthy learning atmosphere in which mistakes become the stepping stones towards greater mastery and deeper learning. One key precondition for carrying out such work is the creation of an atmosphere where errors can be acknowledged and analysed without attaching shame or blame. The chapter also lays out the steps for carrying out action research and provides very useful flow charts about the way each of the four teachers featured in the book have gone about their work.

Overall, this very readable book is a welcome addition to the limited set of books available to the inquiring Indian teacher. Anyone who has questions, like why do children make the same mistakes over and over again? Why are the same mistakes made by a large number of students? What can we learn from mistakes? How can we help children do better? will find this book of great value. This book continues the theme taken up in Neeraja Raghavan's previous book, *The Reflective Teacher* and gives us a richly detailed account of how reflective teaching can be broadened in scope

to encourage learners to be reflective as well. This is certainly not a book to be kept on a shelf to gather dust; it needs to be read widely, discussed in

classrooms and staff rooms so that more teachers and students can enter each other's' mind-worlds.

*Learning from Errors Annual Review of Psychology, Vol. 68:465-489 (Volume publication date January 2017) First published online as a Review in Advance on September 14, 2016 <https://doi.org/10.1146/annurev-psych-010416-044022>)



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The Reflective Learner:
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Neeraja Raghavan

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Indira's deepest concerns are about human well-being and the role of education in promoting or harming it. She understands well-being as a web of mutually affirming and sustaining relationships between all participants in an ecosystem - human, non-human and material. Her work as a teacher and teacher educator provoked a deep questioning about the processes of education and led her to start the Poorna Learning Centre - an 'alternative' school. Indira retired from the Azim Premji University in January 2020. She continues to be actively engaged with Poorna. She has several publications in academic and popular journals. She can be contacted at indira502@gmail.com



Prema Raghunath

This book outlines the education policy that the Delhi Government has espoused under the Aam Aadmi Party (AAP) during its first tenure.

Education is, has been and will continue to be an issue that arouses universal participation, be it in the form of opinion or outrage. Everyone has opinions on what should be taught, how, when and why. Schools advertise their success rates and some schools are more popular than the others for their ability to produce 'cent per cent results', without quite knowing or caring what happens to the students in the process.

However, the success of an educational system of a country - any country - lies in the hands of its teachers and the training they receive to create an inclusive and equitable society; the manner in which they interpret the textbook; and, the way these textbooks are created. Another all-important aspect is the significance the government gives to the composite idea of education: not just lip service, but by actually validating its intent in walking the talk.

This book by the then Deputy Chief Minister and Education Minister, Manish Sisodia, describes how AAP placed Education at the heart of its agenda, by firmly demonstrating how they placed all their belief in the value of education as a breaker of existing barriers.

The book is divided into two parts: *The Foundation of Education and Education as a Foundation*. The first part deals with the actual conduct of government schools. Placing happiness as the most important component in the growth of a human being and her/his ability to prosper and flourish as a person first and as an instrument of economic growth only next, the author works through the aspects of infrastructure, teacher recruitment, training, principals and parents. The start of the section is the increase in the budget, as money is required to make possible the will for change to be

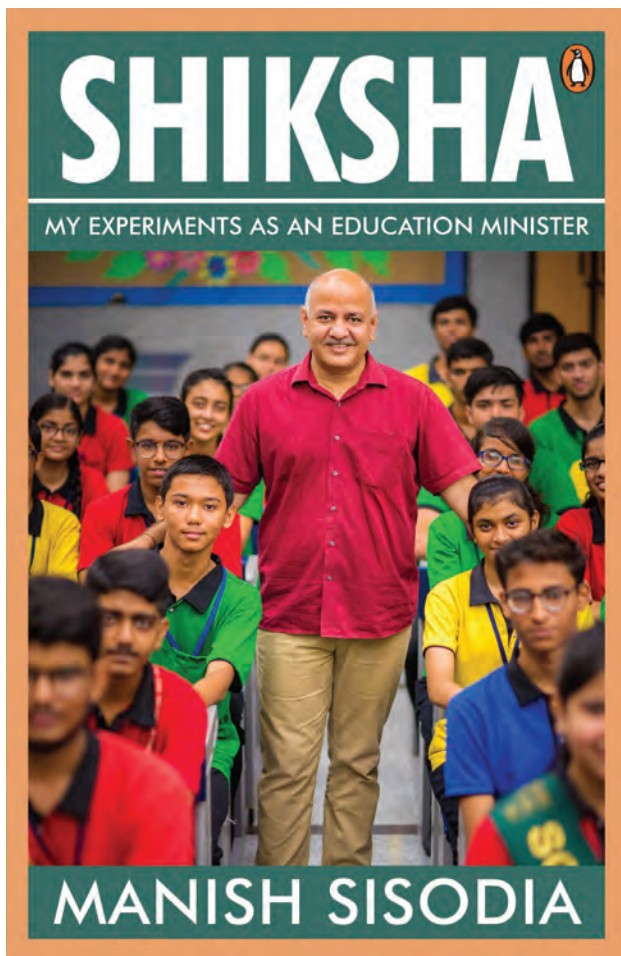
put into actual practice.

The result is a very positive, optimistic account of the education scenario in Delhi government schools at both the physical and operational levels. For example, run-down, non-inspirational classrooms have been given a facelift so that the people who spend the most time in them - the teachers and students - are put into the right frame of mind for learning.

Manish Sisodia's account of improvement includes increased salaries, respect for and deeper involvement in the system by all the stakeholders - teachers, students and their parents.

The second part - Education as a Foundation - emphasises the role of spiritual advancement in the process of citizen-building. Courses such as *Jeevan Vidya* and *Vipassana* meditation are being described as being instruments of instrumental change. Then, there is the Happiness Programme, which teaches children the vital skill of accepting oneself and realising that true wealth is inner joy and learned optimism. This has enabled children to change their perspectives from narrow, self-seeking goals to being the best they can be.

The book is an interesting description of an ideal education programme and, if achieved and replicated across the country, promises future citizens who are resourceful, reliable and conscientious workers to create a new India. The style of writing is conversational: one wonders if it were spoken to an interviewer. Be that as it may, *Shiksha* is a good read and all the better if practised.



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