

Azim Premji University

LEARNING Curve



Rethinking How We Identify Children with Disabilities in Schools

Case Comment - Dharam Singh v. State of Uttar Pradesh (2025)

The State's First Face – A feature on Anganwadi Workers

Vocational Education in Schools

Learning Curve is a triannual publication. It provides perspectives that could help strengthen certain elements of the public education system in India.

All views and opinions expressed in this issue are those of the authors. Azim Premji Foundation bears no responsibility for the same.

To cite our articles, please use the following format: Learning Curve (Issue number); ISSN 2582-1644; (Month & Year of publication); Name of article; Author Name; Page numbers.

All articles in this magazine are licensed under a Creative Commons-Attribution-Non Commercial 4.0 International License. To republish our articles, please write to us.





EDITORIAL COMMITTEE

Editorial Team

Varun Nallur (Chief Editor)

Rishikesh BS

Nimrat Kaur

Chandrika Muralidhar

Sudheesh Venkatesh (Managing Editor)

Email id – editors.learningcurve@apu.edu.in

Edited and Published by

Azim Premji University,
Bikkanahalli Main Road,
Sarjapura, Bengaluru, Karnataka - 562125.
Email: publications@apu.edu.in
Website: www.azimpremjiuniversity.edu.in

Publications Team

Meera Prabhu, Shahanaz Begum,
Lokram VG, Sambit Mahapatra

Design Team

Silja Samuel Bansriyar, Susnata Paul

Layout

Banyan Tree
Bengaluru, Karnataka

Printer

National Printing Press
Bengaluru - 560099

EDITOR'S NOTE

In India, debates about education policy often turn complicated topics like access, quality and inclusion into numbers and outcomes. But behind these figures are real children, teachers, and others whose daily experiences truly shape what schooling means. This issue of our magazine brings together articles that point to a simple truth: meaningful reform rests on inclusion and enablement, which calls for an education system that expands possibilities for all learners, strengthens the capacities of teachers and Anganwadi workers, and finally draws on the voices of all stakeholders of the education system in shaping the way forward.

Nagaland's preschool curriculum, featured in this issue, shows what reform looks like in practice. Moving beyond rote-driven approaches, it places play, context, and culture at the centre of early learning. The principle of learning through inclusion also extends to children with disabilities, as the article in this issue throws light on the invisibility created by weak data systems and late detection, and the possibilities that open up when schools adapt to different needs.

The issue also highlights the journey of Shashikala, an Anganwadi worker, who has spent three decades teaching, feeding, counselling, and recording data with little recognition, reflecting both

the system's dependence on and neglect of its frontline staff. On the other hand, Karnataka's Teacher Training Management System, discussed in this issue, demonstrates a model where teachers are treated as professionals, given a choice and ownership in their learning.

Vocational education has often been overlooked or limited to specific job roles. The interview with Yogesh Kulkarni of Vigyan Ashram reminds us that this kind of learning should connect to local needs, spark curiosity, and help people build capacities for life, not just for work.

The case comment on the recent Supreme Court judgment in *Dharam Singh v. State of Uttar Pradesh* reaffirms that essential public functions cannot be treated as temporary. While the case dealt with a category of employees in the higher education commission, its reasoning mirrors the situation of contractual teachers in India. The judgement's warning against the normalisation of "ad-hocism" challenges this practice, showing that financial justifications cannot be used to deny security and recognition to those who carry out essential, recurring public functions.

True reform will mean not just rethinking what children learn but also how we value those who teach and care for them. As the articles in this issue suggest, an equitable education system rests on recognising children with diverse needs, supporting the frontline workers who sustain it, and creating space for their voices in shaping the way forward.

Varun Nallur





TABLE OF CONTENTS

Children with Disabilities in India
An Infographic **06**

08 The State's First Face: On-the-ground
insights into our Anganwadi worker
Editorial Feature

Curriculum Framework for Early
Childhood Care and Education - The
Nagaland Experience **15**
Roseline Richa

20 Karnataka's Teacher Training
Management System Experience
Gopalakrishna HN

Who gets Counted? Rethinking how
we Identify Children with Disabilities in
Schools **25**
Indumathi Rao

32 Vocational Education in Schools:
A New Beginning - Interview with
Dr Yogesh R Kulkarni
Vigyan Ashram

Case Comment - Dharam Singh v. State of
Uttar Pradesh (2025) **37**
Varini G

41 From the Bookshelf

Children with Disabilities in India

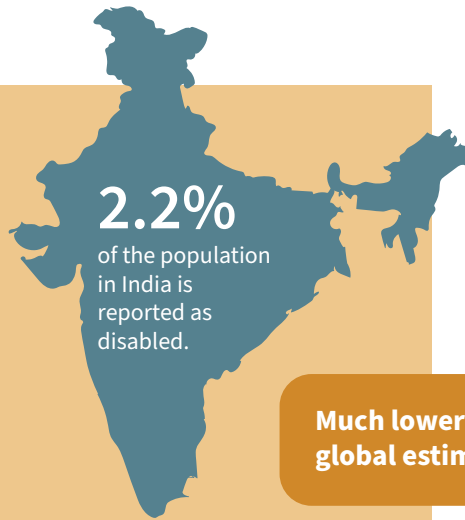
From Early Detection to Schooling and Literacy (based on NSSO data)

Extent of disability



1 in 10
children

(≈240 million) live with disabilities globally



Much lower than global estimates.

Why the gap?

This gap likely reflects undercounting, under-detection, stigma, and narrower definitions, rather than fewer children with disabilities. Such underestimation has serious implications for education planning.

Why it matters?

Undercounting affects education planning.

Better detection can come from:

- School enrolment drives
- Regular health screenings
- Linking survey data with school records (to spot children at risk, track enrolment, and catch dropouts early)



Early intervention



1 in 10

children with disabilities in India get early support (therapy or preschool help).



Initial onset of disability cases is most frequently reported in early childhood.

0–4 years 13.7%

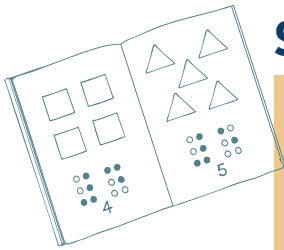
5–14 years 9.2%



Anganwadis can play a key role in spotting delays and referring children to therapy.

Strengthening Anganwadis with training, screening, and inclusive methods is more impactful than piecemeal interventions.





Schooling pathways

62.9%
children with disabilities
have never enrolled in
regular schools.

37.1%
children with disabilities
have been enrolled in
regular schools.



Just **4.1%** ever enrolled in
special schools

fewer than **2%** still attend.

Improving schooling outcomes will require additional support for resource teachers, assistive devices, and inclusive classrooms under the Samagra Shiksha.

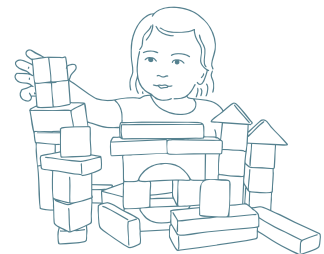
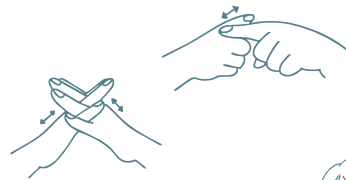
Literacy

Literacy in Persons with disabilities (7+ years):

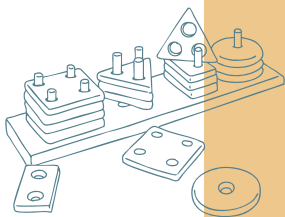


only 51% literate

To bridge this gap, measures such as scholarships, safe transport, and incentives for girls with disabilities are essential.



Barriers to education

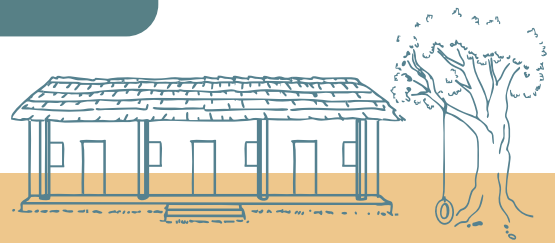


Limited support:

21.8% received help from government

1.8% from other organisations

76.4% got no help at all



Only **28.8%** have a disability certificate, without it, access to schemes and entitlements is blocked.

Why children don't attend school?

- Distance to school
- High out-of-pocket costs
- Disability-related challenges

To bridge this gap, measures such as scholarships, providing UDID certificates, safe transport, and incentives for girls with disabilities are essential.



The State's First Face: On-the-ground insights into our Anganwadi worker

Editorial feature

Tucked inside a densely populated low-income settlement, is a one-room Anganwadi centre that has quietly shaped children's futures since 1996. At its centre is Shashikala (Name changed), now in her early 50s, who has worked as an Anganwadi worker (AWW) for over three decades. Her day begins with cleaning the centre alongside her helper, preparing meals, comforting toddlers, and meticulously documenting everything from immunisations, nutrition, growth monitoring, stimulation, ration distribution along with early childhood education.

This article traces her journey, not as a one-off story, but as a window into the state of India's frontline early childhood services. Her everyday labour speaks volumes about how much we ask of Anganwadi workers (AWWs), and how little we give her in return.



Beyond duties: The expanding role of a frontline worker

Shashikala began her career in 1991, at the age of 20, armed with an SSLC certificate from her village school. At first, she thought her role was limited to caring for children under six. Over time, that role grew encompassing food distribution, health referrals, parent counselling, and running a preschool. After her marriage, she moved to the city, and in 1996 was transferred to her present Anganwadi centre, where she has worked ever since.

When she first joined, home births were common, and food distribution often led to conflict. “People would argue why I couldn’t give food to everyone. They didn’t know the rules,” she recalls. Slowly, through mothers’ meetings and door-to-door visits, she built awareness about breastfeeding, immunisation, and nutrition. Her helper, who came from the same community, became both an ally and an emotional anchor.

Facilities were basic. A leaky roof, poor ventilation, and the lingering stench from a nearby public toilet made the centre hard to run, especially during the rains. When the LPG stove arrived, it felt like a breakthrough. Until then, she and her helper had cooked with firewood, often coughing through the smoke.

Despite these conditions, Shashikala ran preschool activities every day. She made do with limited supplies and often brought materials from home. “The ₹80 contingency amount couldn’t cover the basic needs of my Anganwadi,” she laughs. NGOs and community donations helped occasionally, but for the most part, she ran the centre with patience and improvisation.

Over the years, she has seen the centre evolve. More mothers now visit hospitals, immunisation coverage has improved, and early marriage rates have declined. “Girls are finishing PUC now,” she says proudly. She regularly hosts Early Childhood Care and Education (ECCE) days, nutrition weeks, and *Seemantha* programmes to involve parents and build awareness. Some of her former students now hold regular jobs and some still return to thank her.

In the community, she’s known as *akka* (older sister). Mothers turn to her for everything from breastfeeding advice to ration queries. Shashikala’s story is not an exception it is the rule. Across India’s 1.3 million Anganwadi centres, women like her carry on their backs, the burden of India’s early childhood care system.



What Shashikala's story reveals about the system?

An expanding role, shrinking recognition

Shashikala began her job at INR 250 a month. Today, she earns INR 12,000, but is still officially labelled a honorary worker. In practice, she functions as a teacher, social worker, nutrition assistant, and government data collector. She runs a preschool, tracks growth charts, coordinates health check-ups, submits digital reports, and mobilises families for government schemes. Yet, her job continues to be treated as low-paying work.

This contradiction lies at the heart of the system: a professional expectation without professional recognition. As focus on ECCE deepens, the gap between what is demanded and what is supported only widens.

Digitisation without digital support

Shashikala now updates data on the Poshan Tracker, calculates rations, and uploads applications online. But poor connectivity and outdated systems make this a constant challenge. Instead of easing her workload, technology has often added new pressures especially with the multiple datasets that must be uploaded regularly.

In recent years, real-time monitoring through mobile apps and digital dashboards has become a priority. Yet many frontline workers are expected to make this shift without data allowances and reliable internet access. As a result, data entry can take up much of the day, reducing the time available for direct work with children.



Community anchor

Shashikala is the State’s most visible representative in a vulnerable settlement. She mentors new recruits, clarifies misconceptions about government schemes, and bridges cultural and institutional gaps, work that is deeply relational, ongoing, and often invisible to those who design the very policies she delivers.

Shashikala considers herself fortunate to have a supportive supervisor and Child Development Project Officer (CDPO) who are proactive, responsive, and help her access resources and resolve operational challenges—support that many of her peers in the country may not have.

Still, the absence of formal recognition remains, adding to the weight of her responsibilities.

What this means for policy?

Shashikala’s story is not just personal, it reveals deeper structural gaps that must be addressed for ECCE reforms to take root.

Recognise AWWs as professionals who play a vital role in delivering early education, monitoring child health, distributing nutrition, and connecting communities with the State. Yet they are legally classified as “honorary workers,” paid an honorarium below minimum wage, with no career path, limited or no retirement benefits, or institutional respect.

This disconnect between expectations and recognition is unjust and counterproductive. They should be formally recognised as early childhood professionals with wages that reflect their responsibilities, clear career progression pathways, social protection, health insurance, and the full range of benefits due to any government sector worker alongside opportunities for ongoing professional development.



Invest in real, not just digital infrastructure

Building Anganwadis should not stop at apps and dashboards. Safe buildings, clean toilets, kitchen facilities, and quality materials are foundational. Digital tools must be designed with workers, not just for monitoring compliance.

There is a need to review and rationalise data collection requirements from AWWs through the Poshan Tracker. The review should eliminate duplication, reduce non-essential reporting, and align data collection with actionable needs, especially for monitoring ECCE. Where feasible, data currently collected daily should be shifted to monthly or quarterly reporting, and physical register

requirements removed where digital records suffice. Streamlining these processes will reduce administrative burden on AWWs, enabling them to dedicate more time to ECCE activities.

Streamline duties, prioritise ECCE

AWWs core role is care and education. Non-essential surveys, election duties, and cascading reporting requirements should be reduced. Their time must be protected for what matters most: engaging young children and supporting mothers.

MWCD and States/UTs should limit AWWs responsibilities to their core functions in ECCE and other Anganwadi-related services. Additional tasks, such as data collection or surveys for other departments, should be assigned to alternative personnel such as women SHG members, retired AWWs, retired teachers, or college students to ensure AWWs can focus on their primary duties.

Create feedback loops from the ground up

In monthly meetings, set aside a few minutes for workers to share what's working and what isn't, e.g., from shortages in food supply to app glitches. The supervisors can record recurring issues and pass them up for action. Even small changes such as fixing supply delays or simplifying app steps shows feedback leads to action. Reducing redundant tasks, like repeated photo uploads and form filing, sends a clear message: their time and judgment are valued.

Strengthen capacity building and ongoing support

Most training for AWWs is one-off and uneven, with little follow-up or mentoring. To improve ECCE quality, AWWs need regular, curriculum-aligned training, access to quality learning materials, and sustained pedagogic support.



Ongoing mentorship through cluster meetings, peer learning, or in-person visits can help translate training into daily practice. Workers like Shashikala hold rich, practical knowledge. Policy must create forums for them to inform programme design, share local ideas that work and flag implementation challenges. This is essential for system learning.

States/UTs should provide all AWWs with access to ECCE certification, as per NEP 2020 - six months for 12th pass and twelve months for 10th pass qualifications. Training should be modular, delivered in a blended format with monthly one-day in-person sessions, and fully funded, including fees and related costs. This will enhance the professional standing of AWWs and strengthen ECCE delivery.

Fill supervisory vacancies to support the AWC teachers

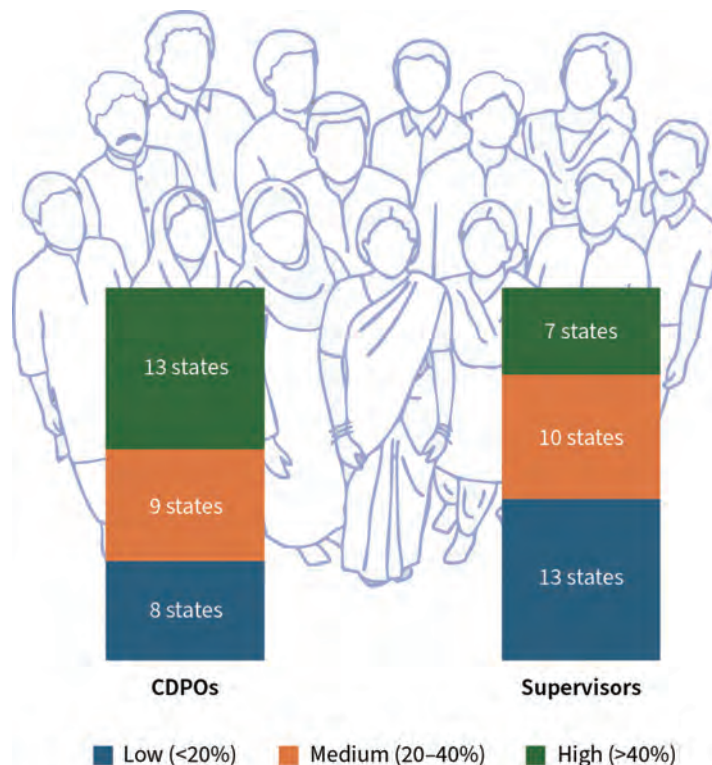
In several States, there are significant vacancies—particularly among CDPOs and

Supervisors that must be filled on priority. In many locations, the vacancy levels for these posts are very high. These positions are essential for guiding Anganwadi workers, delivering training, and providing ongoing field support functions that are critical for effective ECCE rollout in Anganwadis.

Conclusion

Shashikala doesn't speak in policy terms. But her work embodies the principles of early childhood development, health equity, and gender justice. She adapts, improvises, and holds together the last-mile delivery of one of India's largest social programmes. The system runs because she shows up and does her work. If we want to lay a strong foundation for India's future, we must begin where the children are, i.e., in the one-room centres run by women like Shashikala. And that means seeing, supporting, and standing with the AWW who has held the system together all this time.

Percentage of vacancies among CDPOs and Supervisors across States.



Source: Evaluation of ICDS Scheme of India, Niti Aayog (2020)



Curriculum Framework for Early Childhood Care and Education: The Nagaland Experience

Roseline Richa, SCERT Nagaland

Nagaland initiated curriculum reform for Early Childhood Care and Education (ECCE) in 2019. This was prior to the release of the National Education Policy (NEP) 2020, and its emphasis on the early years. This article describes the reasons the State took up this initiative and the process followed.

Basis for developing the curriculum

Even prior to statehood in 1963, Nagaland had Lower Primary (LP) schools in the school system. There were three classes before class 1 namely A1, A2 and B.

There was an established practice of formal teaching and learning of the 3 R's (Reading, wRiting, aRithmetic) right away as a child began school, and even conventional evaluation. Our observation was that this practice in the early grades moved very quickly towards rote learning and the more mechanical academic skills. It was neither

understood nor were children engaged in school readiness activities necessary to initiate and prepare them to start learning how to read, write and perform basic mathematical operations as they enter primary stage. The foundational skills upon which further learning can be built on, were egregiously overlooked.

The need to shift from traditional methods of teaching and learning was paramount. The endeavour was to provide learning experiences that would facilitate holistic development of the child through play. This kindled the vision to develop a preschool curriculum that would provide contextual, stimulating and meaningful learning experiences. We wanted to ensure that children attained grade-level outcomes as they moved to higher grades. We also wanted to align the approach to current thinking about ECCE.

Towards achieving this goal, work began in 2019, even before NEP 2020 was brought out. The priority NEP 2020 placed on ECCE was timely and further propelled our vision to create a joyful, inclusive, and developmentally appropriate early childhood curriculum. The focus was to nurture the holistic growth of every child—fostering curiosity, creativity, confidence, and care through play-based, experiential learning rooted in the child’s cultural context and lived experiences. The curriculum aimed to lay a strong foundation for lifelong learning, school readiness, and overall wellbeing by empowering educators, engaging families, and building vibrant, safe learning environments where every child can thrive.

Process followed to develop the curriculum

State Council of Educational Research and Training (SCERT) Nagaland resolved to involve a diverse group of resource persons from various sectors -DIET faculty members, teachers from government and private schools, officials from social welfare department, faculty members from SCERT Nagaland - to collaborate with Azim Premji University Bangalore.

Before work began on writing the curriculum, the core team engaged in intensive workshops on understanding the need for curriculum review and redesign, learning about the different components of ECCE curriculum planning, learning about

the different curricular perspectives, models and approaches in ECCE.

The group also developed principles and an approach for the present curriculum. This was followed by the development of curricular goals, objectives and early learning outcomes aligned to the Preschool Curriculum developed by NCERT in 2019.

Principles and approach of material development

The principles that informed the work were primarily around the child, content, pedagogy and context. First, the child was seen as playful, curious and engaging with the environment. Therefore, the content must be drawn from the environment – learning must be through the lived experiences of children. Next, pedagogy must be such that it nurtures playfulness and curiosity and enables the child’s exploration. Also, the pedagogy must be inclusive, experiential and aligned to the developmental needs of young children. Finally, context is the physical and socio-cultural environment that child engages with, is familiar with and finds meaningful.

Themes that are taken up to develop the learning experiences and environments for children were based on ecosystems around themes. The eight themes included Home, Neighbourhood, Market, Preschool, Fields and Forests, Hills and Mountains, Rivers and Oceans, and Sky and Outer Space. Each theme provides a variety of interactions between people, objects, spaces, and events, leading to learning experiences that are contextual, inquiry based and meaningful.

The curriculum provides day-wise plans for the themes and the subthemes. Learning experiences, during which children learn new concepts and practice skills through purposeful activities, are the main part of the day and are built on any aspect of a theme.

The approach to developing the curriculum and related teaching learning materials was

WHAT TO LOOK OUT FOR IN THIS THEME?	
DISPOSITIONS	EMOTIONAL EXPERIENCE
<p>Curiosity</p> <ul style="list-style-type: none"> Exploring the neighbourhood and the different details Interacting with trees using multiple senses Bird watching <p>Trust and playfulness</p> <ul style="list-style-type: none"> Playing board game Drawing an outline and painting foot-prints <p>Perseverance</p> <ul style="list-style-type: none"> Asking questions Identifying different birds and recognising them. 	<p>Feelings</p> <ul style="list-style-type: none"> Expressing ideas of a dream neighbourhood Working with peers-painting Teamwork-roles and responsibilities for displaying things at museum <p>Ownership and belongingness</p> <ul style="list-style-type: none"> Identifying family traditions Keeping things brought by children safe in a museum <p>Wonder and amazement</p> <ul style="list-style-type: none"> Learning about dinosaurs and their footprints Explore how letters are posted in a

to create materials that were purposeful and meaningful and not mere decorative articles. Teaching-Learning Materials (TLMs) developed were related to the theme-wise learning experiences described above.

The process of developing the curriculum and related materials was a highly collaborative and hands-on process, which happened through open dialogue, exchange of ideas and suggestions, and a unifying desire to build a curriculum that emphasises play and stimulates joyful learning. Careful considerations were made to develop contextualised and developmentally appropriate materials for the 4–6 age group, matching their cognitive, physical, emotional, and language development stages.

2.1. HOW ARE THE PRINCIPLES WOVEN INTO THE THEMES?



Suggestions and steps to make TLMs were provided by incorporating familiar everyday items relevant to children, which were easily available, recyclable, or eco-friendly materials. The materials were simple, clear and visually stimulating but not overwhelming. Efforts were made to design materials that can be used in multiple, flexible, open-ended ways, across themes and learning areas, which fosters integrated learning and cater to multi-domain development. Materials were designed to include all learners, including those with disabilities, and promote gender equity and diversity. Images, names, and stories that represent varied family structures, tribal/indigenous communities, and occupations were developed.

To support teachers in implementing the curriculum, handbooks that elaborated on the perspectives, approach and desirable learning environments through illustrative classroom experiences were created. Besides this, these handbooks also had day wise learning experiences under themes and subthemes, the related domain competencies and intended learning outcomes and methods for assessment. This handbook was not meant to be taken as an instruction manual or a textbook with a set syllabus. Rather it was meant to be used as a guiding document and modified according to the requirement of a particular classroom, with space for the teacher to adapt the activities based on local context and interests of the children.

Processes for review

As the curriculum was being developed, the materials developed were being reviewed by external ECE experts.

The piloting of the curriculum was carried out in 46 government primary schools spread across all the districts of the State. Training with all related materials required to transact the curriculum was provided to teachers at these schools. On-site monitoring and support, and feedback from the pilot schools were provided by State officials from SCERT Nagaland, Directorate of School Education and Samagra Shiksha.

Contextualisation of curriculum and materials

Contextualisation for the curriculum developers meant that, having understood the importance of creating an environment that is familiar and relevant for the child to engage in learning meaningfully, the curriculum should support learning through lived experiences of the children.

The learning experiences were identified through discussions on how children engage with their environment, what their

environment is made of, and the relationship that they share with different members in their context. The handbook is not meant to be taken as an instruction manual or a textbook with set syllabus, rather it is to be used as a guiding document and modified according to the requirement of a particular classroom, with space for the teacher to adapt the activities based on local context and interests of the children. The curriculum content reflects local environment and culture, incorporating traditional knowledge and practices.

In light of NCF-FS 2022 and NCF-SE 2023, and even particularly SCF-FS being put in place, alignment of our curriculum concurrently with the curriculum goals, core competencies and learning outcomes defined in these documents is underway, for which a series of workshops involving the core members of the curriculum development team have been organised.



Recommendations for other States

Creating a new ECCE curriculum is a foundational investment in a State's future. Below are clear, actionable recommendations for a State undertaking this important task, organised under priorities, pitfalls to avoid, and preparations needed.

What to prioritise?

Child-centered and developmentally appropriate practices

Design curriculum around the holistic

development of children: physical, cognitive, emotional, social, and language development. Emphasise learning through play, exploration, and hands-on experiences rather than rote instruction.

Contextual relevance

Root the curriculum in local culture, language, environment, and traditions. Reflect children's lived experiences. Include multilingual resources that honour children's mother tongues, especially in tribal, rural, or diverse areas.

Theme-based, integrated learning

Use integrated themes (like "Home," "Nature," "Community," etc.) that connect learning across domains and mirror the NCF-FS 2022.

Inclusivity and equity

Design for diverse learners, including children with disabilities, first-generation learners, and those from underrepresented communities. Ensure gender-sensitive, non-discriminatory, and socio-culturally respectful materials.

Empowering educators

Involve Anganwadi workers, preschool teachers, and ECCE trainers in curriculum development. Provide continuous professional development aligned with the new curriculum.

Alignment with NEP 2020 and NCF-FS 2022

Ensure vertical and horizontal alignment with Foundational Literacy and Numeracy (FLN) goals and the 5+3+3+4 structure.

Leverage community knowledge

Invite elders for storytelling, farming parents to explain seasons, artisans for craft demonstrations.

Incorporate wellbeing

Provide emotional literacy, mindfulness, and nutrition learning in simple, age-appropriate ways.

Invest in communication materials

Share the curriculum vision with parents and local leaders to create community ownership.

What to avoid?

Academic pressure and formality

Avoid pushing early reading, writing, or arithmetic through worksheets or textbook-heavy methods. ECCE is not a downward extension of primary school.

One-size-fits-all models

Resist adopting models that ignore local diversity or the realities of community-based learning settings.

Neglecting the role of the family

Avoid designing curriculum only for classroom delivery—include family and community engagement strategies.

Technology overuse

Use digital tools wisely and not as a replacement for human interaction, play, or movement-based learning.

What to prepare for?

Curriculum development teams

Form multidisciplinary teams of ECCE experts, local educators, child psychologists, art and language specialists, representatives from tribal welfare department.

Piloting and feedback

Pilot the curriculum in a small sample of schools, gather data, revise, then implement at scale.

Teacher orientation materials

Prepare user-friendly guides, visual aids, theme books, and planning tools in regional languages.

Learning environment guidelines

Include non-negotiables for ECCE centres like safe and stimulating spaces, child-sized furniture, local play materials.

Monitoring and support systems

Plan for ongoing assessment, supportive supervision, and feedback loops, not just inspections.

Conclusion

Pilot school teachers were not provided adequate support, specifically the use of 'some sort' of training and 'some orientation'. All teachers received some level of support: Pilot school teachers had intensive guidance, other teachers received training and the rest of the teachers began implementing the curriculum after an orientation. We are holding focus group discussions with all these categories of teachers to understand gaps and provide support in the implementation. Classroom observations are also planned in some schools along with demonstration classes by faculty from SCERT.

Roseline Richa, a Reader at SCERT Nagaland, has been involved in material development, research and training in different areas, particularly ECCE and Science Education for almost a decade. She has extensive experience of working in early years development and education spanning a period of 17 years.



Karnataka's Teacher Training Management System Experience

Gopalakrishna H N

When Karnataka introduced the Guru Chethana programme, it was attempting something unusual: making teacher training choice based. For the first time, government school teachers could log into a digital platform and select the modules they wanted to attend. The move from centrally assigned trainings to preference-based selection was more than convenience; it marked a shift towards giving teachers ownership of their professional development, making training more relevant and engaging.

It signalled a recognition that teachers are professionals, capable of judging their own learning needs. Training is most effective when it addresses the challenges that teachers actually face in their classrooms, rather than being imposed uniformly. By giving teachers the agency to select modules, Guru Chethana made professional development more relevant, increased

motivation to participate, and treated teachers not as passive recipients but as active partners in improving the education system. This transformation was made possible through the Teacher Training Management System (TTMS) - a cloud-based platform that managed training preferences, scheduling, and delivery for more than 1.60 lakh teachers across Karnataka.

From fragmented training to a Statewide system

Teacher training in India is often fragmented, ad hoc, and difficult to track, leaving States unable to answer basic questions such as which teacher received which training, whether it met their needs, or how trainer quality was monitored. Confronting this challenge for its 1.65 lakh government school teachers, Karnataka, with support from key partners designed and rolled out the TTMS, a cloud-based platform to plan, deliver, and monitor training at scale.

Key features of the TTMS

Teacher-centric

Each teacher received a personal login (mostly mobile, since many lacked desktops). They could select up to 4 training modules of interest.

Automated batch formation

Complex algorithm using 15+ parameters (subjects, location, availability, etc.) formed training batches at block/district level in minutes — replacing a cumbersome manual process.

Administrative layers

- State administrators (10): Oversight
- District administrators (35+): Planning & monitoring
- Block administrators (390+): Execution
- Trainers (2000+): Delivery

Helpdesk support

Integrated ticketing system for login/app issues, handled by a dedicated support team.

Dashboards & reports

Real-time dashboards on,

- Teacher training preferences (district block-wise)
- Targets vs actuals
- Attendance, feedback, and trainer reports

What is the TTMS?

TTMS is Karnataka's cloud-based digital platform for planning, delivering, and monitoring in-service teacher training. It was designed to address a long-standing problem of fragmented, ad hoc teacher training that States found hard to track.

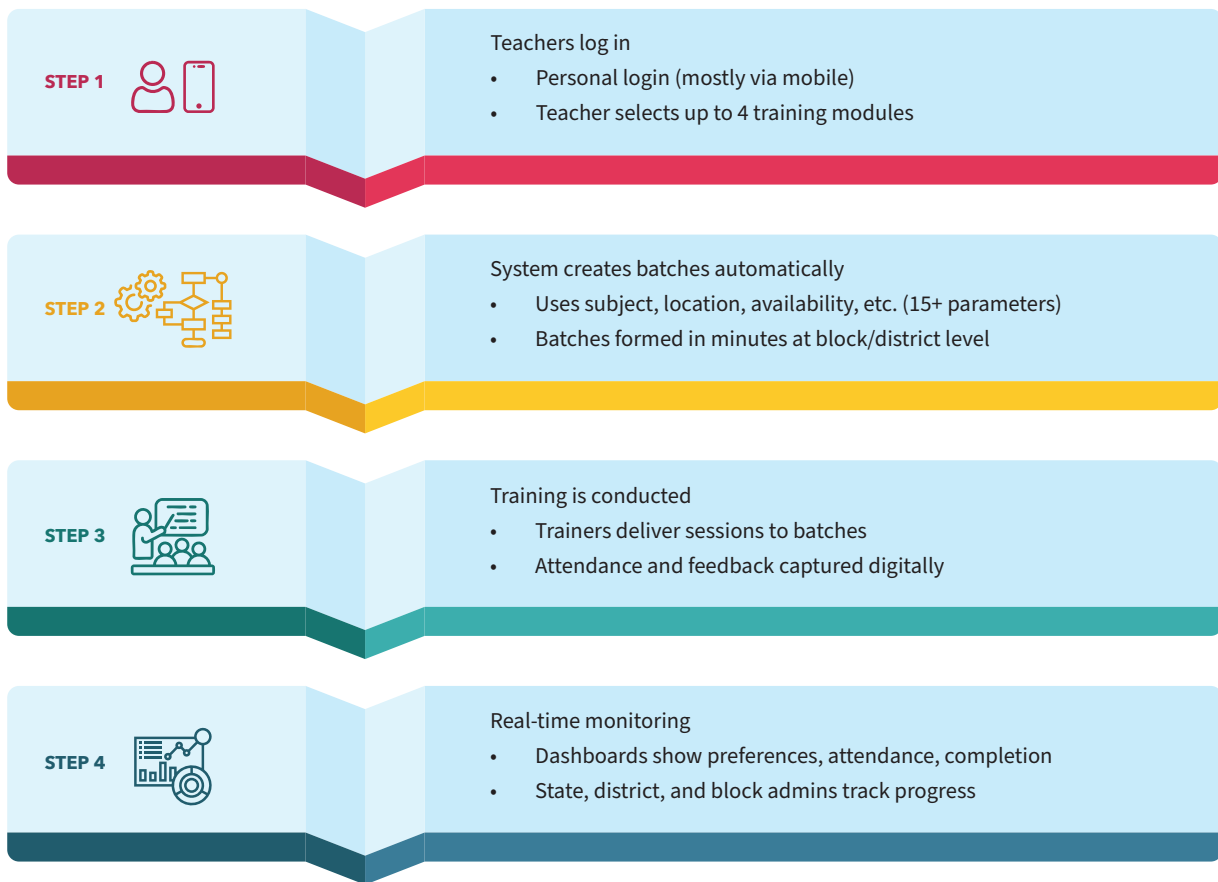
Purpose: It gives teachers choice in selecting training modules, while helping administrators organise large-scale training efficiently.

Information captured: Each teacher's login details, training preferences (up to four modules), batch allocations, attendance, and feedback are recorded. Dashboards generate real-time reports on targets, completion, and trainer performance.

Responsibility: State, district, and block administrators coordinate training, while a dedicated helpdesk supports teachers with login and usage issues.

Teacher choices: Unlike earlier systems where trainings were assigned, teachers could now log in (usually via mobile) and choose modules most relevant to their classroom needs from a bouquet of 104 modules in different subjects.

In short, TTMS became the backbone of Karnataka's Guru Chethana programme by shifting professional development from top-down assignments to a teacher-centred, data-driven process.



What TTMS Tracks - Teacher details, chosen modules, batch allocation, attendance, completion status, feedback

How Karnataka built the TTMS

The TTMS moved from idea to Statewide launch in just seventy days. The process began with a day-long consultation workshop where requirements were finalised and documented in a System Requirements Specification and a Detailed

Design Document. This was followed by the development of prototypes, functional and integrated testing, and finally user acceptance testing. The platform went live on Teachers' Day, 5th September, and within the next two months several enhancements were added to strengthen its features and usability.



Cost and efficiency

By adopting a cloud-based, subscription-driven model, the State avoided heavy capital expenditure on infrastructure while ensuring scalability to more than two lakh users. Just as importantly, automation in areas such as batch formation saved months of administrative work that would otherwise have been required, making the system both cost effective and efficient. All teacher data generated through the TTMS was stored securely in the State's data centre, ensuring both data privacy and compliance with government standards.

Outcomes and benefits

The TTMS quickly demonstrated its value in practice. Teachers gained a sense of ownership by choosing trainings that matched their needs, rather than being passively assigned. State and district dashboards brought a new level of transparency, giving administrators a clear picture of training demand and completion. The system proved its scalability by managing professional development for more than 1.60 lakh teachers, while the built-in grievance redressal mechanism reduced frustration and created a supportive ecosystem. At the same time, real-time visibility on training delivery

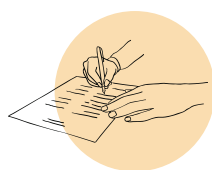
and attendance strengthened accountability across every level of the system.

Frequent telephone conference calls were conducted between state, district, block, resource persons and help desk members to ensure the quality of preparation, logistics and materials

Lessons for other States

Karnataka's experience with TTMS offers several lessons for other States looking to strengthen teacher professional development. First, a mobile-first design is critical, since most teachers rely on smartphones rather than desktops to access digital platforms. Second, a phased rollout can work better than waiting for a perfect system. Karnataka built a working version in just seventy days, and then added improvements based on user feedback. Third, automation saves time: preference capture and batch formation that once required months of manual work were reduced to a matter of minutes.

The initiative also highlights the value of a multi-stakeholder model, where government provides policy leadership, supported by technical and development partners for platform design, infrastructure, and customisation. Equally important, the subscription model proved more cost-efficient than building new systems from scratch. Finally, building in teacher-facing support systems, such as a helpdesk for login and application issues, was essential for encouraging adoption at scale.



6,916 master resource persons for 121 modules have been identified through written test & interviews.

1,60,718 teachers have expressed preference through TTMS.



1,53,416 teachers have undergone training under Guru Chetana programme.

Way forward

Looking ahead, there are several possibilities to strengthen and expand the TTMS. One option is to deepen integration by linking training records with other States systems such as teacher HR databases, DIKSHA for digital content, and even student learning outcomes data. The platform could also

be used more strategically, with training histories feeding into performance reviews, promotions, and needs-based planning for future professional development.

Additional features could be explored over time, such as biometric attendance, payment tracking for trainers, digital repositories for training materials, and continuous feedback loops from both teachers and trainers. These enhancements would allow the system to evolve beyond a management tool into a comprehensive ecosystem for teacher professional development.

Recommendations

For States considering a teacher training management system, a few principles stand out. A cloud-based, subscription-driven model helps avoid heavy capital expenditure while allowing the system to scale quickly. Strong State ownership, with clear roles at the State, district, and block levels, is critical for smooth implementation. It is best to begin with a core version capturing teacher preferences, automating batch formation, and building dashboards and

then expand features gradually. Alongside the technology, States should invest in teacher support systems, such as helpdesks and grievance redressal, to encourage adoption. States should establish clear data protection protocols, ensuring that all teacher information and training records are stored securely within government data centres. Finally, strategic partnerships that combine government leadership with philanthropic organisations with expertise can provide both the capacity and flexibility needed for success.

Karnataka's TTMS shows that large-scale, teacher-centred training management is possible when States adopt a technology platform that is simple, mobile-first, and scalable. With modest costs and quick implementation timelines, similar systems can be adapted elsewhere to bring accountability, transparency, and ownership into professional development. Most importantly, the experience demonstrates that when teachers are given the agency to shape their own learning, training becomes a pathway to stronger classrooms and a stronger education system.

Gopalakrishna. H N, Director, Department of State Educational Research and Training, Karnataka



Who gets Counted? Rethinking how we Identify Children with Disabilities in Schools

Indumathi Rao

Introduction: The crisis of invisibility

India has made strong commitments to inclusive education and disability rights through its ratification of the UN Convention on the Rights of Persons with Disabilities (UNCRPD), the Sustainable Development Goals (SDGs), and the enactment of the Rights of Persons with Disabilities (RPwD) Act, 2016. We are also a signatory to key Asia-Pacific frameworks¹ which set region-wide goals for a barrier-free, rights-based society.

Yet, despite this, many Children with Disabilities (CwDs) remain invisible to our school system. Identification is the critical first step and without it, children miss out on classrooms which are planned to be inclusive, rehabilitation services, and opportunities for full participation in society.

The 0–6 Year Gap: Missed opportunities for early detection

Most disabilities in India are identified after age 6, missing the crucial early years when interventions have the greatest impact. Most disabilities begin to manifest in the early years through speech delays, social withdrawal, hyperactivity, or uncoordinated movement. Yet, children are typically identified only after age 6, if at all. Global and local evidence shows that early detection (from birth to age 6) significantly improves learning, independence, and later economic participation. Yet India lacks a universal early screening system. Tools like DDST-II² and Portage can screen for developmental delays much earlier, but they are rarely used at scale.

¹ *The Biwako Millennium Framework (2002), Biwako Plus Five (2007), and the Incheon Strategy (2012)*

² *DDST - Denver Developmental Screening Test*

India lacks a mandatory, universal early screening system for newborns and children in the first 1000 days. This is a critical policy gap. Without identification during this window, children are likely to miss crucial interventions and support.

Most disabilities in India are identified only after age 6—long after the best window for early intervention has closed.

Responding to the redefinition of disability in India

The RPwD Act, 2016, marked a fundamental shift in how disability is understood. It moved away from the older, medical model which focussed largely on visible impairments towards a broader, social model that includes societal barriers that further impairment. The Act expanded the recognised categories from 9 to 21, including invisible and less-understood conditions such as autism spectrum disorder, specific learning disabilities, mental illness, and multiple disabilities.

The RPwD Act 2016 expanded recognised disabilities from 9 to 21. But our data systems haven't caught up

The Act also introduced the concept of “benchmark disability”—a threshold that determines eligibility for certain benefits. While necessary for utilising resources for identified children, it raises concerns

that children with milder or intermittent conditions may be excluded from services they still need.

Why disability data matters?

Accurate disability data is the backbone of:

- Policy and budget planning
- Designing inclusive curricula and training teachers
- Delivering healthcare and social protection
- Monitoring rights under national and international commitments

Without robust data, children with disabilities remain uncounted for and therefore unfortunately unsupported resulting in lower educational attainment to reduced employment opportunities and social isolation.

How children get counted today: A flawed system

Currently, identification within government systems relies heavily on school teachers most of whom lack any disability training. They are expected to fill in disability data for UDISE+ forms, often without clear definitions, tools, or support. Block-level medical camps are organised sporadically, but these too suffer from a narrow medical lens and typically focus on visible impairments. Invisible and neurodevelopmental disabilities are frequently missed.

There is no systematic early screening mechanism across Anganwadis or schools. Coordination between departments such as health, education, and women and child development is weak. As a result, children with conditions like autism, learning disabilities, and mental illness are either identified very late or not at all.

What the numbers reveal: A stark underestimation

India's key disability data sources reveal significant undercounting: the 2011 Census reported just 2.2% prevalence using only eight narrow categories that excluded many invisible and developmental disabilities; NFHS-5, found 4.5% but NFHS-6 (2023–24) dropped disability questions altogether, creating a major data gap; and UDISE+ records less than 1% of school enrolments as students with disabilities, far below the global expectation of 5–10%. By comparison, countries using broader functional definitions report much higher prevalence for e.g. 26% in the USA³.

India's Census 2011 reported 2.2% disability prevalence yet global evidence suggests it should be closer to 5–10% in schools.

The reasons for undercounting include definitional differences, self-reporting bias, stigma, limited enumerator training, and the absence of tools to identify less visible conditions.

Challenges in disability data collection

Definitional gaps: Census categories lag behind the 21 recognised under RPwD 2016.

Stigma: Families underreport disabilities to avoid discrimination.

Tool limitations: Current survey instruments

are not sensitive to cognitive or behavioral conditions.

Training deficits: Enumerators, teachers, and frontline workers often lack the skills to detect early or invisible disabilities.

Fragmented systems: Health, education, and social welfare databases do not share or integrate data.

These weaknesses perpetuate exclusion, resulting in unprepared schools, insufficient resource allocation, and lost opportunities for children who need timely attention and support.

Promising models: What we can learn from the ground

CBR Network's community-based six-step model demonstrates how visibility can be improved:

Village and ward registers: Local registers maintained by Panchayats record every child, making it harder for children with disabilities to go unnoticed.

Digital tools (Trinetra 1.0 & 2.0⁴, DDST-II⁵, PRASHAST⁶): help frontline workers (AWWs, ASHAs) systematically identify developmental delays and disabilities.

Medical and functional assessments (e.g., WHODAS 2.0⁷) with telehealth support: Links local findings to specialist assessments, even in remote areas, ensuring no child is missed out.

Individualised Education Plans (IEPs): Based on NCERT frameworks, these convert assessment findings into tailored learning goals for each child.

See infographic on the next page.

³ CDC, 2019

⁴ *Trinetra 1.0 & 2.0 - Trinetra is a comprehensive disability screening and inclusion software developed by CBR Network to support the identification, assessment, and inclusion of persons with disabilities at the community level.*

⁵ *DDST-II (Denver Developmental Screening Test – Second Edition).*

⁶ *PRASHAST (Preparedness for School Students with Disabilities) developed by NCERT.*

⁷ *WHODAS 2.0 (WHO Disability Assessment Schedule 2.0)*



Screening for difficulties using screening forms for different age groups developed by CBR Network



Screening for disabilities using PRASHAST screening form



Referral paediatrician at community health centre and physicians for diagnosis of disabilities use trinetra and other telerehab software

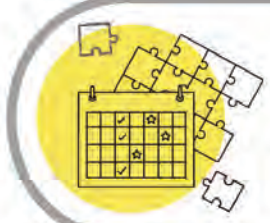


Disability assessment by a multidisciplinary professional using telerehab technology



Measurement of disabilities and refer to UDID card if a person has more than 40% of disability

Plan medical intervention, assistive devices, therapeutic measures



Develop Individual education plan, Individual training plan, and monitor on quarterly basis

Parenting guides and community ICT stations: Give families easy-to-understand advice and access to digital resources for home-based support.

Training of AWWs, ASHAs, and Panchayat members which will help them learn to identify and support children, so action happens within the community, not only in formal institutions.

This model works through existing government and community structures, meaning it can be scaled nationally without creating an entirely new delivery system.

Policy priorities for Census 2026 and other National surveys

To ensure no child is left behind, India's next census and education surveys should:

Align definitions

Update census schedules to include all 21 categories under the RPwD Act, 2016, and adopt functional assessment tools to learning disabilities.

Train enumerators for disability sensitisation

Build skills for early detection, sensitive questioning and correct recording to avoid underreporting.

Make data collection accessible

People with sensory or intellectual disabilities can self-report, provide sign language interpreters, large-print questionnaires, easy-read formats and pictorial aids.

Raise public awareness before surveys

Conduct campaigns to reduce stigma, explain the value of disability data and encourage accurate reporting.

Integrate data systems

Link Census, UDISE+, and health/social welfare databases for real-time monitoring and follow-up.

Link Census findings to school action

Ensure children identified during the census are referred to local schools and services. Create a feedback loop between data and intervention.

What policymakers can do now?

Train Teachers for Early Recognition (0–6 years)

- Include disability awareness and screening methods in in-service teacher training and pre-service teacher education.
- Provide simple, validated tools such as PRASHAST and DDST-II for use in classrooms and AWCs.
- Develop a clear referral pathway so teachers know exactly where and how to send a child for further assessment.

Improve accuracy of disability data in UDISE+ and school records

- Conduct annual school-wide screenings using standard tools to detect both visible and invisible disabilities.
- Cross-check school-reported data with health and ICDS records to capture children identified in other sectors.
- Hold joint verification meetings with teachers, health workers, and Anganwadi staff before UDISE+ submission deadlines.
- Run community awareness drives to encourage parents to report disabilities without fear of stigma.

Create referral networks linking schools, health centres, and ICDS

- Establish district-level coordination committees with education, health, and ICDS representatives.

- Set timelines for completing referrals, e.g., all flagged cases assessed within 30 days.
- Use a shared digital platform to track each child from identification to intervention.

Strengthen panchayat and community roles in identification

- Train Panchayat members, SHGs, and local volunteers on disability indicators and referral processes.
- Include disability identification and support as part of the Gram Sabha agenda.
- Recognise local bodies that successfully bring out-of-school CwDs into the system.

Mandate early screening through public health and ICDS Systems

- Integrate disability screening into routine health check-ups, immunisation drives, and growth monitoring sessions.
- Equip ASHA and AWWs with mobile-based screening apps that link to district referral centres.

- Ensure screening results are shared with both health and education departments for follow-up.

Fund inclusive education with dedicated budget Lines

- Allocate separate funding for special educators, speech and occupational therapists, and resource room facilities at the unit of villages/panchayat
- Provide grants for purchasing assistive devices, learning materials, and accessible ICT tools.

Conclusion

Disability identification is both a moral responsibility and a development necessity. With the 2026 Census, India has a rare opportunity to redesign its approach aligning with the RPwD Act, adopting inclusive tools, and building data systems that truly capture every child's needs.

Moving beyond statistics to early, accurate, and comprehensive identification will ensure that children with disabilities are not just counted, but supported to learn, thrive, and participate fully in society. The time to act is now.

Dr Indumathi Rao is Regional Adviser for the CBR Network. She works closely with universities, NGOs, and governments to advance disability inclusion policies and practices. She has designed academic programmes on inclusive education and community-based rehabilitation, and her work across seven South Asian countries focuses on promoting empowerment through education and advocacy.

Footnotes

- 1 Trinetra 1.0 & 2.0 - *Trinetra is a comprehensive disability screening and inclusion software developed by CBR Network. Originally introduced in 1997 as Trinetra 1.0 to assist rural doctors in implementing the Persons with Disabilities Act, it has now evolved into Trinetra 2.0, aligning with the UNCRPD, the Rights of Persons with Disabilities Act 2016, the Sustainable Development Goals, and the National Education Policy 2020. The software provides age-wise screening tools, generates individual education and skill development plans, and prepares district and school-level inclusion roadmaps. It also links users to a vast directory of resources, NGOs, government institutions, and professionals, enabling multidisciplinary support, UDID registration, and community-based rehabilitation—particularly in rural, tribal, and remote areas—thereby fostering equitable and inclusive development.*

- 2 PRASHAST (*Preparedness for School Students with Disabilities*)
 - Developed by NCERT, it's a screening checklist that teachers can use to identify children who may have one of the 21 disabilities listed under the RPwD Act.
 - Covers physical, sensory, intellectual, and learning disabilities.
 - Designed for use by teachers in regular classrooms, so it doesn't require medical training.
 - Output: Flags children for further assessment by specialists.
- 3 DDST-II (*Denver Developmental Screening Test – Second Edition*)
 - A developmental screening tool for children from birth to 6 years.
 - Checks for delays in gross motor, fine motor, language, and social-personal skills.
 - Often used by health workers and early childhood educators, but can be adapted for Anganwadi workers and teachers.
 - Output: Helps identify children who may need early intervention before starting formal schooling.
- 4 WHODAS 2.0 (*World Health Organization Disability Assessment Schedule*) is a standard WHO tool to measure functioning across six domains—cognition, mobility, self-care, getting along, life activities, and participation—focusing on what a person can do in daily life rather than their diagnosis.

References

- Ministry of Health and Family Welfare (2021). NFHS-5
- Ministry of Education (2023). UDISE+ Reports
- Ministry of Social Justice and Empowerment (2016). RPwD Act
- United Nations (2006). UNCRPD
- CBR Network (2023). Trinetra 2.0 Handbook
- Census of India (2011). Disability Data



Vocational Education in Schools: A New Beginning

Interview with Dr Yogesh R Kulkarni,
Executive Director, Vigyan Ashram

Vigyan Ashram, established in 1983, has been working towards rural development through education and technology. As part of this work, the organisation has worked towards introducing vocational education rooted in the local context in schools since 1987.

Q. You have been part of the discussions around the transformation of vocational education for over two decades. What, according to you, is the current status with respect to education related to work in the school curriculum?

Vocational Education has been a largely neglected area in school education. While there is some effort, though not deliberate, around developing prevocational capacities till the primary stage, the approach in later stages is more aligned to skill development

rather than education related to vocations.

The message that hands-on activities are important in the primary stage has gone out to parents and the community; they even demand that their children be active in schools. However, as students move to Grade 6, the opportunity to work with their hands is lost. At this stage, students have many questions, inquiry-based learning should be encouraged, yet the focus remains on classroom based and textbook centred learning.

Vocational education is offered as an elective in schools from Grades 9 to 12, but the focus is on specific job roles or skilling. This is part of the reason for its poor status. Skills need a lot of time and practice for proficiency, especially at a young age, which schools cannot provide. And to assign a single job role to the student is injustice. The outcome is neither skilling nor understanding of the world of work.

This lack of focus has led to poor investment in resources and capacity building, as well as lack of research on pedagogy and assessment in Vocational Education.

While work experience, Socially Useful Productive Work (SUPW), or education about work in any other name has been part of some school curricula, it has never been taken seriously, partly because it was always a 'graded subject', with no incentive to either perform better or invest in this subject.

Q. What is the role of the National Skills Qualifications Framework in designing and implementing vocational education curricula in schools?

Post the National Skills Qualifications Framework, the same job roles have been offered in both skilling institutes like the Industrial Training Institutes (ITIs) and schools, but at a basic level. This has made the situation worse due to fragmentation of the concept of work, so much so that students are prepared only for entry level job roles in schools (e.g., helper, assistant, etc).

The National Skills and Qualifications Framework (NSQF), notified on 27 Dec 2013, is a competency-based, outcome-focussed framework for defining vocational competencies at different levels. The Framework enables certification in vocational skills.

Thus, NSQF was used as a basis for designing school curricula with good intentions, but the wrong messages have been delivered to parents. Hence, their acceptance is less.

Implicit in this approach is the belief that vocational education is needed by those who cannot study further, or those who need livelihood post Grade 10 or 12. However, this does not match the message delivered

over the past 75 odd years that education is essential and aspirational. Schools are offering livelihood through vocational education while parents are thinking about the future, for better opportunities for their children. To quote Dr Ambedkar, 'The paternal duty lies in giving each child a better start than its parents had'.

Q. What is the role of choice in vocational education?

In my observation, schools pick up vocations that do not require additional resources, for example vocational education related to computers or retail and finance. This is irrespective of the interest of students, opportunities in the community or the future of the vocation.

Hence, choices offered are few, and usually one option is provided for the entire batch. The student has to decide on a vocation at Grade 9 or at the most Grade 11 without any idea of their preference for the future or of other opportunities that exist. A student is handed over a 'choice' or influenced by the teacher so that, for example, even if they are interested in automobiles, they must pick retail. Often, only students who are considered 'good' basis their score in other subjects are allotted vocations like Information Technology (IT).

The NEP 2020 has done a good thing – it has made vocational education compulsory for all and not a choice, with the NCF-SE 2023 offering a framework comprising three forms of work, which require students to do work across life forms, machines and materials, and human services. We have tried out a similar approach in Vigyan Ashram.

Q. Could you elaborate on the approach of Vigyan Ashram to vocational education?

Dr S.S. Kalbag, the founder of Vigyan Ashram was always uneasy with the approach

of trade-based skill education at the school level. In our work, which began in Maharashtra, there was an insistence on offering students choice based on the needs of the community.

The Vigyan Ashram philosophy is that nature is the curriculum, and the needs of the community determine the syllabus. If the community needs energy, students examine what is available in the environment and are guided towards specific kinds of work – this is the syllabus. This ensures that work is related to the local context, e.g., students take up animal husbandry, taking care of goats and cows in Rajasthan, and fish in Konkan. At the same time, they use basic technology to find solutions to problems or to optimise the work of communities. With this approach, each student acquires vocational capacities in engineering, energy, agriculture, animal husbandry and home and health, while providing different need-based services to their community.

The community is expected to pay for these services, thus bringing in the quality/service dimension. Also, since the needs of the community keep changing, the syllabus keeps getting updated.

Q. Can this approach be scaled up?

At the Vigyan Ashram campus in Pabal, we pilot all the educational experiences we offer to students. It is our laboratory. We have scaled up through the 'Introduction to Basic Technology' (IBT) in secondary schools since 1987. IBT has been recognised as a subject by the Secondary School Board, Maharashtra, is and aligned with the first two levels of the NSQF as a Multi Skills Foundation Course, offered in 300 plus schools in the state.

Currently, more than 85 types of different services are provided by schools to the community as part of their curriculum,

ranging from soil testing, ensuring electrical safety to selling food items.



While not directly related to vocational education, in Andhra Pradesh, with the support of UNICEF and Samagra Shiksha, we created hub and spoke model for strengthening Atal Tinkering labs (ATLs) in each district of Andhra Pradesh, covering 700 schools. These hub schools offer demonstration and training to other schools in their district while their teachers and district science officers are master trainers. Teachers from the hub schools and We have used the same model in Telangana and Karnataka.

In Uttar Pradesh, we are supporting the state government with the help of UNICEF in implementing the 'Learning by Doing (LBD)' programme. LBD workshops have been established in 3300+ schools, and an activity book created for Grade 6 – 8 developed collaboratively with teachers. While initial training was by Vigyan Ashram, from this year onwards, DIET faculty are being trained as master trainers to build a supportive ecosystem.

Q. Any observations about the NCF-SE 2023?

As mentioned, the NCF-SE 2023 presents a framework with different forms of work. The focus is on developing broad capacities that are applicable across a form or work rather than skills. For example, soil testing and preparation, irrigation and monitoring growth are needed in a range of vocations from crop cultivation to polyhouse farming to aeroponics. Understanding how characteristics of materials impact the work that can be done with them, basic operations of machines, creating prototypes and using them to take decisions



about final products in construction, metal fabrication, and so on. Communication, determining needs, protocols related to working with people in healthcare, tourism, hospitality, etc. And, of course, following safety protocols, following environmentally friendly practices, basic costing and budgeting are common across the forms of work.

However, the risk that there will be dilution and misuse (e.g., using periods allotted for vocational education for 'core' subjects), and that states and boards will interpret the

NCF-SE 2023 in their own way is very much present.

Kaushal Bodh, the activity books for Grades 6-8 have been published, while work is going on towards developing textbooks for Grades 9 and 10. It is good that the materials have been developed so soon after the NCF-SE 2023 was released, since teachers and other stakeholders find it hard to understand curricular documents till they have a concrete example. At the same time, while the activity books and textbooks help a great deal, there is a need to showcase implementation in schools. This is a big shift in school education people will not understand or change in a day.

Q. How do you propose this showcasing be done?

This is the first time that Vocational Education is going to be implemented on such a vast scale in all schools from Grade 6 onwards.

Since local choice and flexibility are key to implementation of vocational education, given that there will be need for local resource persons and sites of work that students can observe, school heads and teachers will need support. Initial implementation could be in pilot mode to collect examples of implementation in schools across different geographies and the nature of support required.

There is an intention to develop digital materials to provide this support but that is likely to take time. Similar avenues for teacher support can be explored. It goes without saying that the government must take the lead in both dissemination and building capacity.

Q. What are your specific recommendations related to the implementation of vocational education in schools?

We must use the current momentum and roll out vocational education in schools quickly. The first priority is addressing the tool deficit.

To take vocational education ahead in schools, students should be made the flagbearers. In our experience, once tools and enough raw material reach the school, things are made despite, or even in spite of, the teacher.

Mechanisms like peer-to-peer learning, groups, clubs, etc., should be put in place. Advocacy and awareness among teachers are important – a single teacher is capable of doing a lot.

Just like a school needs a library, it needs a workshop with minimum tools and consumables. Just as a science kit is part of the school inventory, a vocational kit with basic tools and materials like spanners, hammers, nails, screwdrivers, etc must be available and used in each school, keeping safety considerations in mind.

It is also very important to change the perception of vocational education, otherwise we can forget about making any change. It must be emphasised that vocational education is not only important for earning livelihood but to develop capacities for life.

Q. Finally, Vigyan Ashram has been following the approach of Gandhiji's Nai Talim. How does the approach of NCF-SE 2023 compare to Nai Talim?

Of course, terminology changes with time but the core is the same. One important aspect of Nai Talim was community service. SUPW

was also meant to get students involved, literally, in socially useful productive work. The moment we adopt this lens, the local context automatically becomes important. The only difference is whether the work is done for a consideration or as a service to the community.

At the same time, care should be taken to ensure a sustained educational experience. For example, many schools have kitchen gardens and students work in them. But there is no structure to this work, it is simply an activity. Also, plantations drives are common – these are events, even celebrations, but do not help academically. Bagless days have value for activities but can be compared to a summer camp – they are good while they are underway, but their lasting benefit remains to be questioned.

Vocational education must be isolated from these activities and events. The structure should be such as to ensure alignment with competencies. Work itself should be ongoing, done in phases to ensure students have time to reflect, try out, improve.

Documentation, interviewing, preparing questionnaires, learning from others, implementation with resources, following different steps, values associated with the work and all these cannot be ignored as these are important for students.

If all this is done, then students will not only learn but also have fun!

Dr Yogesh R Kulkarni, has led the work of Vigyan Ashram for over two decades. He has worked closely with NCERT, PSSCIVE (constituent unit of NCERT), and several states on various initiatives related to vocational education. He is a member of the Curricular Area Group on Vocational Education, tasked with the development of materials for schools.



Case Comment - Dharam Singh v. State of Uttar Pradesh (2025)

Varini G

The Supreme Court has reaffirmed that the State cannot treat essential public functions as temporary. Longstanding workers performing perennial duties deserve stability, security, and lawful recognition even in the face of financial constraints.

Background and facts

The Supreme Court of India, on 19 Aug 2025 allowed an appeal in the case of Dharam Singh & Others v. State of Uttar Pradesh (CIVIL APPEAL NO(S). 8558 OF 2018). The case concerned the issues of regularisation of certain government posts.

The brief facts are that the appellants in the case were engaged between 1989 and 1992 by the Uttar Pradesh Higher Education Services Commission (hereinafter “Commission”) as daily wage Class IV employees (peons/ attendants) and a Class III (Driver) employee. Their duties included sorting and scrutiny of applications, dispatch, office support, and driving, which were considered regular and continuous but were paid on a

daily basis. They were later shifted to a small consolidated salary.

In 1991, the Commission tried to create 14 permanent posts and sought approval from the State Government, to no avail. The Commission made repeated proposals to the State Government in 1997 and 1999, furnishing lists that included the appellants, but the State Government rejected them on grounds of financial constraints. The appellants challenged this refusal to sanction their posts before the Allahabad High Court in 2000, seeking that the order be quashed and that the court issue directions to create the sanctioned posts, and their regularisation. Initially, the High Court directed the Commission to make a fresh recommendation and ordered minimum pay, but the State Government declined yet again in 2003, citing financial crisis and stating that there was a ban on the creation of new posts.

In 2009, a single judge bench of the High Court dismissed the petition by holding that there

were no vacancies. While doing so, the High Court relied on a Supreme Court decision from 2006 in *Secretary, State of Karnataka & Ors¹ v. Umadevi & Ors* (hereinafter “*Umadevi*”) by stating that Umadevi barred regularisation. In 2017, a two-judge bench of the High Court affirmed the same decision of the single judge bench. Post this, the appellants approached the Supreme Court, contending that the State Government’s refusals were arbitrary despite the perennial nature of their work, thus leading to this judgement.

Key findings of the court

The questions before the Supreme Court had to be answered in two parts. *Firstly*, answering whether the High Court made an error in failing to decide on the appellants’ principal challenge to the State Government’s refusal to sanction posts, as the High Court reduced the dispute to be a plea for regularisation. *Second*, if such an error was established, the Supreme Court had to decide what the appropriate relief must be, in view of the appellants’ long, continuous, and undisputed service.

While answering the first question, the Supreme Court stated that the plea before the High Court was not about regularisation; it was a plea seeking direction to be issued to the State Government (“a mandamus”) to sanction posts that were proposed by the Commission. The Supreme Court stated that the High Court, in its single bench decision, failed to consider this question and did not dig into the question of whether it was correct in law for the State Government to refuse to sanction posts on the grounds of financial constraints.

The judgement also stated that the High Court’s reliance on *Umadevi* (2006) was

incorrect because the question that the judgement in *Umadevi* answered was whether employees appointed without following due process, i.e., the constitutional scheme of recruitment for public service, could claim a right to be regularised or made permanent. To this, the Supreme Court had answered in the negative by stating that public employment must strictly adhere to the constitutional scheme of equality of opportunity in Article 14 and 16. The Supreme Court had further stated that appointments made in violation of this scheme conferred no right to permanence. Therefore, in *Umadevi*, it was decided that regularisation cannot be a mode of recruitment.

While deciding the above, the Supreme Court also relied on two other recent judgements in *Jaggo v. Union of India²* (December, 2024) and *Shripal v. Nagar Nigam³* (January, 2025) wherein the court had cautioned against overreliance on the *Umadevi* judgement to make “ad-hocism” in public employment the norm.

The relief provided, while answering the second question before the court, was that all appellants be regularised with effect from the date the High Court had first directed reconsideration in 2002. The State Government and the relevant authorities were directed to create supernumerary posts in the relevant Class III and IV categories. Further, all appellants were directed to be placed at not less than the minimum of the regular pay scale with entitlements to arrears covering the difference between regular pay and what they had actually received from 2002 until regularisation/retirement/death depending on the individual employee; all of which being payable within three months. It was further directed that the retired appellants were to have pensions and

1 2006 (4) SCC 1

2 2024 INSC 1034

3 2025 INSC 144

terminal benefits recalculated on the basis of regularisation, whilst legal heirs of deceased appellants were to receive arrears and dues.

Implications and a broader debate

While deciding these questions, the judgement laid emphasis on certain aspects of employment. The judgement stated that the State is not a market for employment but is a constitutional employer and therefore cannot balance budgets “on the backs of those who perform the most basic and recurring public functions.” It stated that engaging workers for essential and perennial functions on a daily basis or on a contractual basis deprives them of security and benefits despite performing crucial tasks identical to “regular” employees. It laid a great deal of emphasis on the issue of financial constraints being used as a justification by stating that fiscal concerns cannot override fairness, reason, and the constitutional duty to organise work on lawful lines.

Whilst the case at hand deals with a different class and type of employees, the principles upheld in the case presents a lesson for how various governments have been dealing with vacancies for perennial jobs across different sectors of government despite sanctioned posts. As a case study, if we were to assess the gamut of education sector within the government, we see that teaching is, by its very nature, a perennial function. But states across India have time and again relied on ad-hoc contract positions to fill posts across different levels of the education sector. For example, a study conducted in 2020 reported that the number of contract teachers increased from 5.6 lakh to 6.3 lakh between 2012 and 2018, with the proportion of contractual teachers being greater in

rural areas, schools with low enrolment, and those for children from disadvantaged communities. This has a far reaching impact on the quality of teaching-learning for reasons ranging from the qualifications of contractual teacher to lack of motivation due to disparity in service conditions.⁴ The law⁵ is that ad hoc appointments must be made as a last resort and only when the government is unable to fill the sanctioned posts through regular processes; therefore, any deviation from this is a violation of the law, and exploitation of workers with no low pay and no labour protections. This judgement’s warning against normalisation of ad-hocism directly challenges the governments’ reliance on short term contracts for perennial jobs despite the existence of sanctioned posts; thereby evading their duty to provide stable employment for a recurring public function.

While *Umadevi* bars regularisation as a mode of recruitment, it is a broader problem: as the judgement in the instant case clarifies, the issue remains that governments are relying on ad-hoc appointments as the norm as opposed to an exception, without filling the sanctioned posts. The judgement offers a powerful precedent for rethinking teacher recruitment policies (as well as other perennial jobs within public services). The judgement serves as a lesson and a warning against structural de-professionalisation in essential public services. It also reaffirms that by relying on ad-hoc recruitment as the norm, the practice would be exposed to potential legal challenges. To illustrate, if sanctioned posts for teachers represent recognition of real, recurring work, then leaving them vacant while relying on ad-hoc teachers undermines both constitutional and administrative commitments.

4 Ramachandran, Vimala, Deepa Das, Ganesh Nigam and Anjali Shandilya. 2020. *Contract Teachers in India: Recent Trends and Current Status* by Azim Premji University, Bengaluru.

<https://publications.azimprejmiuniversity.edu.in/4785/>

5 Office Memorandum No. 28036/1/2012-Estt (D) dated 03rd April, 2013.

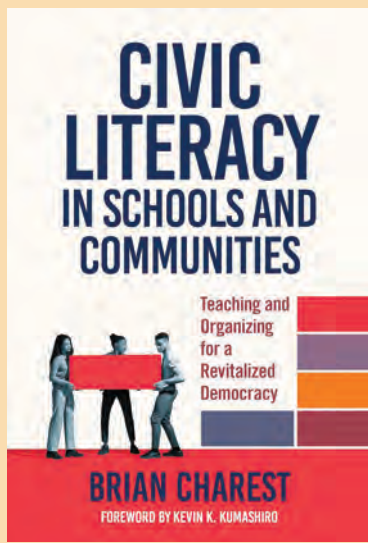
A stark fact that the judgement also acknowledges is that financial stringency has a place in public policy and administration, but must not come at the cost of the basic rights of people that perform such labour and keep the institutions running. This reasoning strikes at the core of the fiscal justifications often advanced for contractual employment for public services. Financial allocations must be structured based on real

workforce needs and their day-to-day work. If in the case of teachers, the sanctioned posts fiscally account for these workforce needs, they must be duly filled without relying on ad-hoc appointments. Moreover, the long-term cost of keeping sanctioned posts vacant is high - with low state capacity and the state not being able to effectively deliver on public functions that have long term impacts on socio-economic development.

Varini G works as a Research Fellow at the Vidhi Centre for Legal Policy



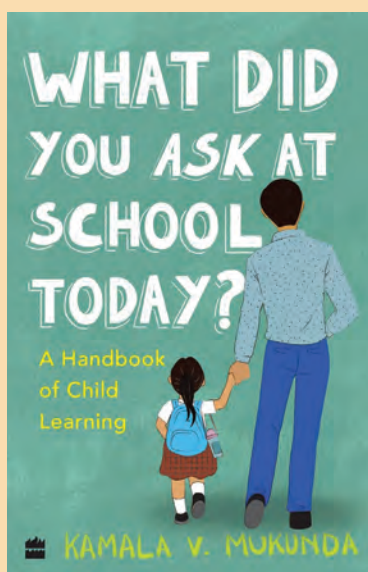
From the Bookshelf



Civic Literacy in Schools and Communities: Teaching and Organizing for a revitalized democracy by Brian Charest

Teachers College Press, 135 pages

This book challenges us to think of schools not only as sites of academic instruction but as spaces where democracy is lived, practiced, and strengthened. Drawing on his experience, Charest shows how reforms focused narrowly on test scores and accountability, fail to address the deeper realities of poverty, inequality, and exclusion that shape children's lives. Instead, he argues for an approach where schools and communities are seen in relationship with one another, where learning is grounded in civic engagement, collaboration, and collective wellbeing. Though written in the U.S. context, the questions it raises resonate globally, including in India. This book offers both critique and a vision of schools as vital sites of democratic life.



What Did You Ask at School Today? A Handbook of Child Learning, Book 2 by Kamala Mukunda

HarperCollins, 376 pages

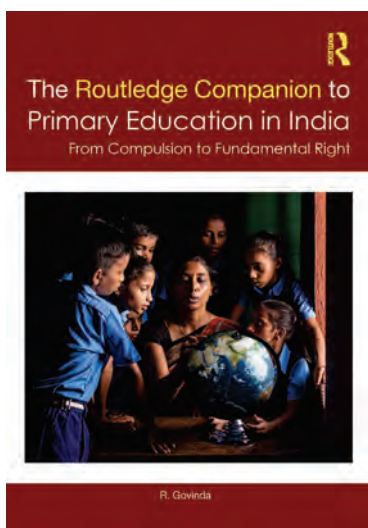
This is a rare book that bridges science and practice in education. Drawing on neuroscience, psychology, and classroom realities, Kamala examines some of the most common assumptions about how children learn, whether every child has a unique 'learning style', what attention and behaviour really mean, why reading and arithmetic can be difficult, and how gender and technology shape outcomes. For policymakers, the book is valuable as it shows how to distinguish evidence from myth and how to think carefully about the design of educational interventions.



***Abundance* by Ezra Klein and Derek Thompson.**

Profile Books, 304 pages

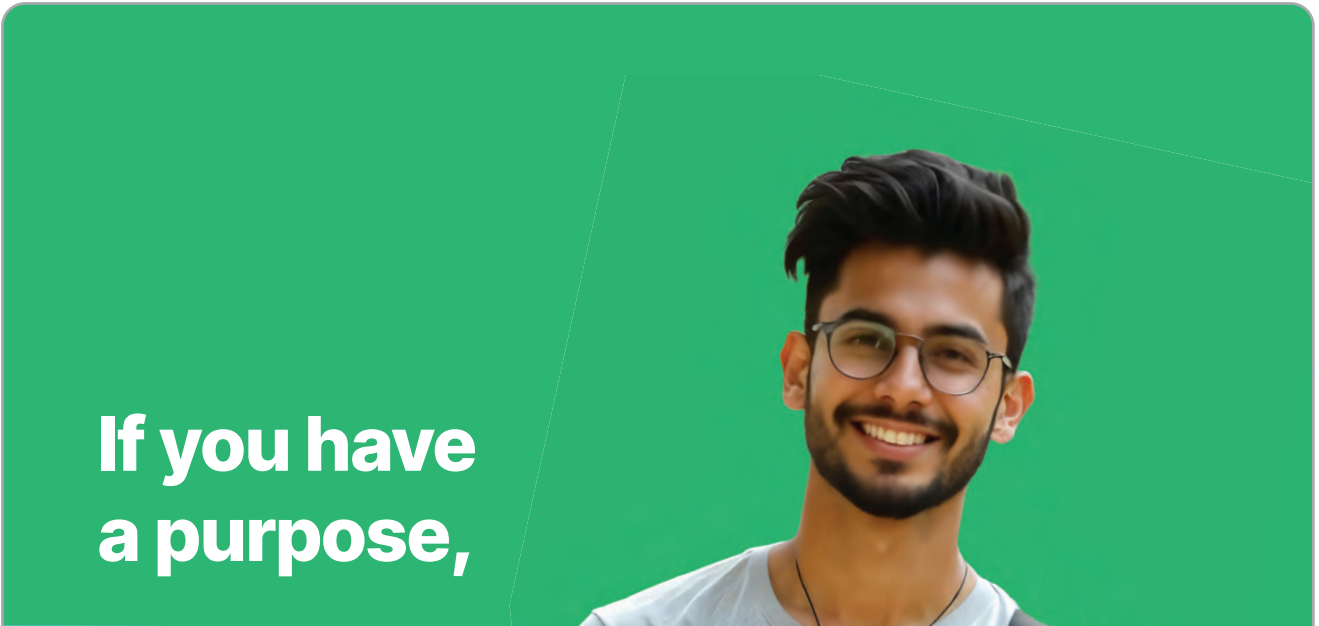
This is not a book on education in the narrow sense, but it offers an important perspective for policymakers thinking about systemic reform. It argues that societies often operate in a “scarcity mindset,” where regulation, bureaucratic inertia, and risk aversion prevent progress in critical areas like housing, energy, and health. The authors make a case for shifting toward a culture of abundance, one that enables innovation, lowers barriers, and expands access broadly. It equips us with a mindset for reforms, helping us see how governance choices either stifle or unlock possibility.



***The Routledge Companion to Primary Education in India: From Compulsion to Fundamental Right* by R Govinda**

Routledge India, 496 pages

This book draws on official records, legislative debates, and key policy milestones, including Gokhale’s Bill of 1911, Mysore’s early experiments, the Wardha Scheme, the Five-Year Plans, and the Right to Education Act (2009). It explores why India’s promise of “education for all” has often gone unfulfilled and shows how the nation’s efforts have repeatedly stumbled over the same issues: a colonial legacy, gender inequality, a fragmented teacher identity, the rise of para-teachers, and a worsening learning crisis. The book reveals why universal and meaningful schooling in India remains an unfinished project.



**If you have
a purpose,**



**we have
the programme.**

If you believe an education should offer more than just a degree.
If you seek holistic learning that challenges convention.
If you dream of leaving the world better than you found it.
If you seek mentors who inspire, not just instruct.
If you're restless for opportunities that match your ambition.
If you want to master your field, not just graduate in it.
If you're driven by a higher purpose, this is for you.



**Azim Premji
University**

Campuses : **Bengaluru | Bhopal | Ranchi**
Programmes : **Undergraduate | Postgraduate | Diplomas & Certificates**

ISSUE
21

About us

Learning Curve is a magazine reimagined for those shaping and influencing education policy and practice. It serves as a resource for policymakers, bureaucrats, government officials, and key decision-makers in public education.

The magazine delves into education policy, implementation, curriculum design, financing, and systemic reforms, offering insights into their real-world impact. Through expert analysis, case studies, and discussions on emerging trends, *Learning Curve* bridges the gap between policy and practice to support informed decision-making for a stronger education system.



Azim Premji University

Survey No. 66, Burugunte Village
Bikkanahalli Main Road, Sarjapura
Bengaluru – 562125

Website: azimpremjiuniversity.edu.in

Youtube: @azimpremjiuniversity

Facebook: /azimpremjiuniversity

Instagram: @azimpremjiuniv

X: @azimpremjiuniv