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The wonder years: A profile of Madhav Chavan

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Abstract   An idea took shape in the slums of Mumbai in the early nineties and went on to become a peoples' movement to address the problem of providing quality education for all of India's children. This piece profiles Dr. Madhav Chavan, the man who provided the dynamic vision for and creative leadership of that mission/movement. Dr. Chavan combined the wisdom of an ancient Chinese philosopher and lessons from the fast-food restaurant model to develop innovations in education that are enabling children and youth to learn. His unwavering focus on the human values behind the big numbers, as well as his celebration of the joy and wonder at the heart of all learning, are a large part of the educational story that is unfolding in faraway villages in India and providing a trigger for social change. This article is an attempt to present his contributions to education innovation in India.

Keywords   Literacy · Pratham · Madhav Chavan · Social change

"What if you put the whole control of learning in the hands of the children?" Two and a half years after he stepped down as CEO of Pratham Education Foundation—the non-profit he cofounded in 1994 to ensure that every Indian child was in school and learning well— Dr. Madhav Chavan is still toying with questions. The above question is foremost among them as he continues to break new ground with his current preoccupation: digital learning innovations, which aim to integrate technology with activity-based learning. In my interview with Dr. Chavan, he said:

This article is based on conversations with Dr. Chavan and stories about him. Unless otherwise cited, I recorded the quotations from Dr. Chavan that appear in this article during my interview with him on December 20, 2017.

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I am a tinkerer in many ways, figuring things out, finding answers, doing things well, doing things, period. Ultimately, that is the one thing you learn in serious research: that you can't let go. It's like a dog with a bone. Is this the way it is? Is this the only way? Why isn't this happening? Why isn't that happening? It's a matter of improvisation, constantly asking how we can make it better and, most of the time, it is common sense. This "Let me see what happens …" has become my full-time occupation. Once you are driven by things you want to do, things happen.

Dr. Chavan continues to be a board member of Pratham and in charge of its vocational training and digital learning innovations. He is focused more than ever on unlocking the potential of India. He recently travelled to Alakhpura, a village in Haryana's Bhiwani district, to meet its football coach. More than 300 girls and boys train every day in this village, trying to level the playing field between the sexes in a state that has the lowest female-to-male sex ratio in the country and a high incidence of repression of and crimes against women. Against these odds, Alakhpura has produced some among the finest women footballers. And Dr. Chavan has decided to play the odds. He has asked Pratham's communication team to shoot instructional videos in which the Alakhpura girls teach children how to play soccer. The entire village community took an interest in the project. "Imagine", says Dr. Chavan, "village girls coaching other village girls on video how to play soccer! Why must education only be in schoolbooks and not games? I can't wait to work similarly with music!" Having a conversation with Dr. Chavan is a bit like reading a page-turner, waiting for the twist in the plot. There almost always is one, and it comes wrapped up in a question, an urgent, compelling question about what more can be done, how things can be done differently, more efficiently, and—the question that brings out that special twinkle in his eyes and has his colleagues primed for action—"What next?". "When you start working, new thoughts come in. This is the downside of working with me!", he is known to chuckle to his colleagues.

Perhaps such habitual questioning is natural for someone who came of age at a time when the pervasive cinematic icon was the working class hero who, impatient with the status quo and inequality, spearheaded change. Perhaps such constant experimentation is to be expected from a student of chemistry whose research centred on potential. (As Dr. Chavan put it, "We wanted to find out how to use water to produce tremendous amounts of energy, and because the end product is also water, there is no waste—that was the dream".) Perhaps such bold innovation is not surprising coming from one who returned to India soon after completing his Ph.D. and then recruited volunteers for radical campaigns in adult literacy, sanitation, and, most resoundingly, children's education, on an unprecedented scale and with unprecedented energy. Dr. Chavan believes "it's a criminal waste of potential when you don't educate somebody". Dr. Chavan's career in education and social work, indeed, his entire life, has been a journey of transformations and experiments deeply grounded in a unique theory of social change that has been corroborated, time and again, by the evolution of the Pratham Education Foundation.

To write a comprehensive biography of a mind and a life of such complexity and richness is next to impossible, and also a project that Dr. Chavan wouldn't encourage. Firmly of the opinion that "you have to be useful to people without making a big deal of it", he prefers a critical rather than celebratory approach to his work. He always emphasizes all that's still to be done:

When you have a certain conviction and ideas, you are not modest about them. You are modest in a certain context. Newton is known to have said, "To myself I am only a child playing on the beach, while vast oceans of truth lie undiscovered before me".

From all accounts, Newton was not a man of humility, but he understood that what he'd done didn't even scratch the surface of the knowledge that was out there! That is the kind of modesty you need to have.

This article is an attempt, then, to profile Dr. Chavan's contributions and innovations in education, and to highlight some milestones in his dynamic vision that celebrates the joy and wonder at the heart of all learning.

Madhav Chavan was born on June 30, 1954, in Mumbai, into a time and milieu of intense political, economic, and social ferment as India, in its first decade of independence, was experimenting with the ideals of an inclusive and progressive nationalism. He fondly recalls visits to the historic city of Kolhapur over school holidays, his grandparents, a large jumble of cousins, and his interactions with the comrades and trade unionists he grew up with in the politically charged Mumbai of the sixties and seventies. In his acceptance speech upon receiving the 2012 World Innovation Summit for Education (WISE) Prize for Education, which has been instituted by the Qatar Foundation to promote imaginative approaches to manage educational challenges and reward outstanding contributions to education, Dr. Chavan drew attention to the age-old wisdom that it takes a whole village to raise a child:

I stand on the shoulders of many people. My grandfathers were very interesting people. One was an entrepreneur and the other was a man of justice and active in social reform. My two grandmothers were from big families and wise women. My mother was a creative teacher, very popular with her students. My father was a social worker committed to the working classes. His friends and colleagues brought me up.

His father, a freedom fighter and trade unionist, was thrown out of the Communist Party in 1942. Along with some of his expelled colleagues, he went on to found the Lal Nishan Party, which sought to apply communist ideals to its work in the state of Maharashtra.

Brought up in a household that served as an office during the day and a place for people to sleep in at night, Dr. Chavan experienced, first hand, the importance of community networks.

Sometimes we forget what role, what influence the community, social environment plays in a child's upbringing. It is a complete environment that the child learns from. Education is too important to be left to the government alone. It is about people also taking charge, taking the initiative: "Let me see what I can do".

Dr. Chavan must have subconsciously imbibed the idea of social activism from his time spent living in Maharashtra. That state loves its heroes, who include: Chhatrapati Shivaji, celebrated as much for his sense of justice as for his unconventional strategies in building a military leadership of commoners who resisted and outwitted the Adilshah and the Mughals; Jotiba and Savitri Phule, social reformers of the nineteenth century who campaigned against caste discrimination and also founded the first school for girls in Pune run by Indians; Gopal Krishna Gokhale, Gopal Ganesh Agarkar, and Maharishi Karve, active proponents of universal education for all children irrespective of caste and gender; and Shahu Maharaj of Kolhapur, who made education free and compulsory in Maharashtra. Shahu Maharaj himself recruited Dr. Chavan's grandfather to his judiciary, where he became a high court judge. Shahu Maharaj instituted hostels for poor students and those from the lower castes, and was among the first to set aside guaranteed jobs for Dalits.

Along with the stories of such heroes to fire young imaginations, stories as potent as the fiery flavours of the Kolhapuri cuisine he is fond of, Dr. Chavan also had, as he

grew up, the example of his immediate family. From a childhood of such inspiring influences, he recalls early interactions with his teachers before he reached seventh grade. In particular, he remembers his art teacher, who sent him for the elementary drawing examination, which he passed. "She gave me a steel cup at the annual day function. That's a very fond memory I have of her: teaching us, staying after hours and helping us and being very nice about it". This instance of a teacher taking an interest in children "beyond the call of duty" resonates with him. Dr. Chavan remembers his mother in the same way. "A creative teacher who taught geography, but also spent time with students after school to teach them how to make stuffed toys and paper flowers that she taught herself from books".

Dr. Chavan recalls being an indifferent student until the eighth grade, when "there was one experience in academics which stands out and which drives home certain things". Upset with his low scores in math and science, his mother enrolled him for private lessons.

> She was convinced I was the most intelligent and brilliant child in the world, "Why can't you score higher?", she would ask me. Like most children, "Leave me alone", I'd tell her. She insisted I go to a well-known tuition class that my cousins had attended and gone on to become engineers, which was the scary part, because then you would have to become an engineer! The person who ran the tuition class looked at me: "You aren't here because you want to study, you are here because your mother brought you here, aren't you?". I didn't reply. He then said: "If you want to study, come, but if you are going to waste your mother's hard-earned money, then don't come". That struck me and I took it as a challenge.

He began waking up earlier than usual, boarding the bus to attend the 6:30 a.m. lesson, returning home for a hurried breakfast, and then traveling by local train to school, a 45-minute ride away.

> The influence of saying "Do you want to do it?"… This is something we need to figure out, with children and with anyone. This doesn't have a place in our growth plan at all. And we know that anybody who has accomplished anything has started out by wanting to do something. In a mass system, this is the problem. Unless you are close to the learner, you can't challenge the learner. You can give incentives, money, but that isn't enough. It's always about something different to do, big/small, a challenge.

Whilst in college, Dr. Chavan involved himself in student politics, strikes, soup kitchens for famine victims, the struggles of landless labourers. The Emergency in 1975, when India was under authoritarian clampdown, coupled with political extremism muscling out leftist idealism, reoriented the 21-year-old's focus back to his studies. He graduated with an MS in chemistry from the Institute of Science in Mumbai (1978) and went onto study for his Ph.D. in chemistry at Ohio State University (1983). After three years at the University of Houston in Texas as a postdoctoral fellow and a visiting assistant professor, Dr. Chavan returned to India. He remembers his father asking him, "What do you think will happen in the next thirty years?" and he remembers his stunned response. "I've just about managed a job! I don't have time to think about what will happen in the next thirty to forty years!" Now, almost 30 years after his father's prescient question, in a world transformed by information technology, Dr. Chavan shares his father's urgency about anticipating—adapting to—changing times. In his speech upon accepting the Medal for Distinguished Service conferred on him by Columbia University Teachers College in May 2017, Dr. Chavan left the audience with pretty much the same question to think about as the one his father had once urged him to ponder:

Before the Industrial Revolution, the world was a nonlinear space. The Industrial Revolution brought assembly-line production. Now, with information technology, the main feature of the technology is that it shapes your life in a nonlinear manner. Our education system, the way we learn, is a linear process, one that is bound to fail…There is a contradiction between how young children want to grow and what the system is providing. It isn't just about educating children; it's about bringing up children. How will the global community help children grow, learn values?

Dr. Chavan's engagement with the field of education began in a nonlinear manner. A prolonged teacher strike in 1988, while he was a reader at the Bombay University Department of Chemical Technology (now University Institute of Chemical Technology, Mumbai), prompted him to write a letter to Rajiv Gandhi, then prime minister of India, about the dire state of education in the country. Subsequently Anil Bordia, the education secretary, challenged Dr. Chavan to come up with a solution. This challenge led Dr. Chavan to start mass adult-literacy campaigns in the slums of Mumbai in 1989 as part of the National Literacy Mission. In 1990, Dr. Chavan anchored a wildly popular programme for adult literacy, called Akshardhara, for India's national television broadcaster, DoorDarshan. Telecast every fortnight at prime time, the episodes had music, skits, interviews with illiterates, education experts and people who'd learnt late in life, to inspire and motivate people to learn to read and write. The focus, even then, was on finding people in the slums themselves to teach others in their immediate community. He now downplays the programme's popularity, saying "Luckily, it was the only channel in those days, so there wasn't any competition!". However, the programme's success attests to how his wide-ranging passions—music, photography, technology, and astronomy, to name a few—inspire his work. Following from a UNICEF initiative that brought together business, civil society, and government to find solutions to the problem of inadequate primary education in Mumbai's slums, Dr. Chavan co-founded the Pratham Education Foundation in 1994. At first, the new organization struggled for human, financial, and technical resources. Pratham did large-scale surveys quickly by relying on volunteers ranging from highly educated physicians to school dropouts. While some suggested they do teacher training, others advised they bring out-of-school children into schools. Then Dr. Chavan heard that the municipal school teachers were saying that the most important thing was to get the preschool children school-ready. There were no preschool education centres for children of the poor at the time. There was, however, an existing model for a self-sustaining preschool centre. Pratham tweaked that model so that it could be used in the crowded slums of Mumbai, where there were many young female high school dropouts eager for work. Using that labour force, the foundation opened hundreds of preschool centres in the slums, in temple/mosque compounds and other shared community spaces as well as people's homes. In that way, Pratham created its DNA for community volunteer-based, mass-scale, replicable work with measurable outcomes. The rest, as they say, is history.

The 2015 Skoll Award for Social Entrepreneurship celebrated just this when it announced Dr. Chavan as its 2015 recipient. Instituted by the Skoll Foundation, these awards identify change agents whose innovations have had a significant, proven impact on some of the world's most pressing problems, and invest directly in the promise of even greater impact on scale. Accepting the award, Dr. Chavan reflected: "India is a country of big numbers in which sometimes human values get lost. This is something we have to overcome. I don't know when, but we need to get there". Recognizing the potential in each individual—kindling confidence in one's ability—is perhaps the most

dynamic of Pratham's contributions and reflects the humanitarian values that provide the spark to Dr. Chavan's life's work.

Contribution to education

Sharada Jain, director of the Society for Study of Education and Development, a Jaipur-based nonprofit organization, has perhaps best described Dr. Chavan's approach to learning. She identifies *Colours* as "classic Madhav". *Colours* is a short story that Dr. Chavan wrote for the non-profit children's book publisher, when this independent vertical of Pratham was established in 2004 to fill the gap of good quality, affordable books in languages Indian children read and learn in. It is this book that Dr. Jain delighted in during our summer afternoon's discussion about what children like reading for a field report for Pratham Books I conducted in 2011. Dr. Chavan's story is a series of questions about the world around us: "Why is the sky blue? / It is not always blue. Is it?". It struck her as ingenious:

> When I first read the book, I thought I must take it to schools, to teachers, because we generalize so often, and Madhav's book breaks that generalization. It is fantastic! This is unique to Madhav—in a few sentences, he goes out of the box! "Why are leaves green? / They are not always green. Are they?" And suddenly, we realize we must disaggregate! It is not giving any judgment, any moral, any teaching. As children, we always find it easier to imbibe from behaviour, rather than have a value theorized for us. Look into yourself—do you ever cease to be a child?

Such thought-provoking childlike curiosity and interest animate Pratham's cheerful yellow blackboard logo, which states: "Every child in school and learning well. All our activities address a gap or a need in the education system and in society. We aim for high impact and low cost on scale". Indeed, Pratham has grown through constant experiments, as Dr. Chavan and his colleagues continually question the way things are. Today, Pratham's reach and portfolio has expanded throughout India, with programmes that include early-childhood education, foundational and remedial education for primary and upper primary age groups, teacher training, vocational training, digital learning, community libraries, and the rescue and rehabilitation of children forced into child labour. The 2016–2017 "progress-o-metre" on Pratham's website estimates that Pratham has reached 612,435 children through direct teaching-learning interventions across 23 states and Union Territories of India; trained 24,162 youths; and enrolled 4,330 dropouts. Its community-based outreach programmes reached 523,471 children, and partnerships with local governments benefited 4,500,000 children.

What is the big idea behind Pratham? Impatient with weighty words, Dr. Chavan is known to quote the ancient Chinese philosopher Lao-Tzu: "Go to the people. Live with them. Learn from them. Love them. Start with what they know. Build with what they have. But with the best leaders, when the work is done, the task accomplished, the people will say: We have done this ourselves". And he often startles people when, in the same breath, he applies his fast-food restaurant analogy to explain how Pratham has grown in scope and size.

> The McDonald's, Udipi, and Chinese restaurant models of running an enterprise are important to understand the spread of Pratham. Replication, scaling-up, and spreading are three different things. McDonald's is a replication and scaling-up model. The

Udipi or Chinese restaurant is a "spread" model. The menu looks the same but flavours vary from one location to another. People take ownership of their restaurants and cater to local needs. One management does not control the local restaurant in the spread model. In a country like India, in the field of basic education, it is a fallacy to think you can control quality by controlling people. People have to take ownership and perform once a "menu" is given. The only control I have is over the accounts and the original design of the programme; from thereon, I must trust them to do the right thing. When we started working, cell phones weren't even available. I just had to trust the person who went out to the field.

He often laughs about how the late Mrs. Kumud Bansal, a civil servant who spent most of her governmental career handling education, once joked that he is, indeed, a clever man, for he dreams up crazy ideas and has other people chase them! Dr Chavan agrees with her:

I have the luxury of stepping back. It just so happened that these leaders came and led from the front. I was leading from the rear—I didn't actually go and open any preschool centre, and after a point I wasn't going and meeting teachers, the pace of growth was such… It was my philosophy to decentralize and give control to everybody else. In order to empower others, you have to first disempower yourself.

During their work in Mumbai's slums in the mid-1990s, Dr. Chavan and his colleagues realized that children were not learning how to read. They knew that if one cannot read, one cannot go forward on his or her own. Dr. Chavan and his colleagues came up with a solution, the Learning to Read programme and the Learning Camps. Dr. Chavan drew upon his experience of how his daughter had learned to read—getting the sound and shape of letters and words from bedtime stories that her mother read to her. Dr. Chavan, in his words, "liked to play tricks" when it was his turn to read to his daughter, and was intrigued that the three-year-old noticed when he skipped words. He creatively used the *barakhari,* or alphabet primer, after a professor brought to his attention how it was a coding-decoding chart of sounds. Soon after, the Pratham team figured out how to get children (age 8 and above) reading fluently within 30 to 50 days and how to do it with local volunteers and low-cost materials. The team shared its learning with community people trying to teach reading, and also the state governments, recognizing that it has the most important role in providing education.

Next, Pratham wanted to make more people aware that, regardless of a child's grade, that child needs to learn to read. Pratham refined the testing tools used to evaluate learning to read experiments, eventually inventing a new tool, the Annual Status of Education Report (ASER), a citizen-led nationwide survey of learning levels. ASER quantified the problem of poor-quality education for the first time in India. Along with other data on learning outcomes, it forced the national and state governments and local communities to realize that merely sending a child to school does not translate into learning when 50% of children are unable to read and do math even at a level that is two or three grades below their own grade. Once the focus in education shifted from enrolment to learning, the next natural step for the Pratham team, the 2007 Read India campaign, took the issue of inadequate education, more importantly, what could be done about it, to over 350,000 villages in India. This flagship programme has evolved since then to ensure basic learning outcomes in language and mathematics, based upon insights of the Pratham team drawn from their experiences in implementing the programme in the field as well as through externally conducted evaluations. While the implementation of this model can take many forms (such as with government teachers or lightly trained volunteers/para teachers, during the school day or outside

of school hours), the key components include assessing the students' learning levels at the beginning of the school year or programme, grouping them based on their learning levels rather than by age or grade, and using level-appropriate materials rather than based on a rigid national curriculum. Learning Camps, that is, a community-based model where the Pratham team, with assistance from locally recruited and trained volunteers, provides instruction in an interactive environment through short bursts of ten-and twenty-day camp-like activities and games, aims to move the majority of students to the highest ability group by the end of the intervention so that they are able to read basic texts with understanding, have the confidence to do basic arithmetic operations as well as express themselves both orally and in writing. "Library" activities to sustain the learning gains follow. Groups of children meet periodically outside school, to do activities, and are helped by people around them. It is designed to encourage involvement and engagement of families and communities in children's learning. In 2015–2016 and 2016–2017, Pratham conducted Learning Camps in approximately 5,000 government primary schools in 18 states across India, reaching close to 300,000 children. The government partnership model involves training government school teachers to deliver the programme in schools for a designated time each school day. Over the last decade, Pratham has partnered with the MIT based Abdul Latif Jameel Poverty Action Lab (J-PAL) to evaluate both these models through rigorous impact evaluations that show that reorienting classroom instruction to teach at the level of the student are consistently effective in raising test scores. Following the success of the model in India, similar programmes have been implemented in Kenya and a pilot to see how teaching at the right level might work in Ghana is underway.

This provides an example of the way Dr. Chavan goes about doing things, identifying a problem and then finding the solution, starting from scratch. A bunch of people trying various things develop a totally indigenous model, test its efficacy and then share their experiences and spread their successful approaches widely. Creative leadership, unconventional ideas, innovative solutions, and an infectious dynamism are as characteristic of Dr. Chavan as free-wheeling (often heated) discussions and open channels of communication are of Pratham.

> I think it's a very Indian, or, shall we say, old society, kind of functioning: we chat, have a conversation, argue, it's like a continuous conference that goes on, people talking to people all the time, a lot of informality, it encourages people's participation. This is important. Ideas evolve in a collective effort. The culture of people who get into development is about "I want to change the world", and I can't understand the obsession to change the world. We never set out to change the world—it was a job to be done. A lot of things happen because of dissatisfaction.

A recent article (Banerjee and Duflo 2017) on evidence-based policymaking for the poor highlights Dr. Chavan's experimental approach to such work. In it, professors Abhijit Banerji and Esther Duflo of J-Pal (Abdul Latif Jameel Poverty Action Lab)—a global research network that uses randomized evaluations to answer critical policy questions about how best to address poverty—wrote:

> Pratham thrived on ignoring the many education experts who accused them of only scratching the surface of the problem. They were keenly aware that the problem of providing quality education for all of India's children was immense—so big indeed that no one yet had even started to quantify it in the way that Pratham eventually would through its remarkable ASER (Annual State of Education Research) surveys…From the very early days, Pratham took the view that the only way we would

get there is by trying out different ideas, in part to find some levers to move this mountain, and in part as a diagnostic tool…Since then, Pratham and our J-PAL colleagues (including us) have worked together on a dozen or so RCTs [Randomised Controlled Trials]. Out of that (and the many conversations we have had on the sidelines of an RCT) has emerged a simple but powerful theory of why schools fail. Ultimately, we believe, everyone in the education system is focused on the few children who, from the early days, are marked for success. The tyranny of the syllabus does not allow most teachers to step back and help the children who have fallen behind catch up, though in the rare cases when they do, there are dramatic positive results. This is the idea of teaching at the right level (TaRL), which Pratham and J-PAL now jointly promote to governments all over the world.

Dr. Chavan's forte is that he is able to think about the nuts and bolts of a solution to a problem and simultaneously about how to implement solutions widely in a way that allows everyone to participate in their execution. Awards in recognition of Pratham's work celebrate just this inimitable, and unfailing, trait. (It is a matter of pride and satisfaction for Dr. Chavan that, in each instance, Pratham has been nominated for an award, never actively sought one.) In 2017, Dr. Chavan received the Medal for Distinguished Service, the highest honour bestowed by Columbia University's Teachers College. In 2014, the Banco Bilbao Vizcaya Argentania Foundation Frontiers of Knowledge Award, an international award programme recognising significant contributions in the areas of scientific research and cultural creation, feted Pratham's transformational work. The same year, the Asia Society named Dr. Chavan the "2014 Asia Game Changer". The award recognizes those making a transformative and positive difference for the future of Asia and the world.

Dr. Chavan received the 2012 WISE Prize for Education, widely considered as the Nobel Prize in the field of education. As documented on the WISE website, the chairman of WISE, Dr. Abdulla bin Ali Al-Thani, while conferring the prize remarked, "His story combines the passion of a social entrepreneur with the patience and method of a scientist. His approach shows that the most important resources for successful innovation are a clear vision, determination, and the ability to apply unrecognized capacities to a shared cause". Presenting the 2011 Skoll Award for Social Entrepreneurship to Dr. Chavan, Sally Osberg, President and CEO of Skoll Foundation, commended him for "transforming India's approach to children's literacy and education. His unwavering insistence on universal education and his work to engage community volunteers in the quest for literacy has already reached more than 34 million children, offering a proven model for the entire world".

Where people look for meaning/ mission behind Pratham's unparalleled story, Dr. Chavan locates "poetry":

The confidence is that if you do good and it is imaginative, it is effective, then people will support you. To talk about Pratham in terms of scale and measurement is to describe the grammar of Pratham. Where is the poetry of Pratham? It is in the people who come together, how they get along, how these dynamics work. The spread is important. This is a team effort in which there are several I's, and I was the glue holding it together. It is the skill and courage of so many people who take ownership, take the initiative, assume leadership, build teams, face unfamiliar situations and go ahead and get things done. I am just one face of Pratham. The person in the field is the face of Pratham, and this is the beauty of how Pratham has grown and spread. There is something about sons and daughters of the soil participating. It transforms who you are and what you are. It forges strange connections with India and Indians.

Dr. Chavan's unique spin on social entrepreneurship resonates with many of Pratham's individual donors, who understand just how important it is for people in need to be given opportunities to succeed. Many of Pratham's supporters and champions are successful entrepreneurs who remember how someone took a chance on them, and, in one instance, how the entire village came together to sponsor his education. Dr. Chavan hopes this social capital of a community of home-grown entrepreneurs and leaders risen from the ranks who take ownership and initiative will support Pratham's vocational training programme, called "Learn Now, Pay Later". The Pratham Institute teaches employable skills to youth (age 18–25) from poor backgrounds, and provides them with access to entry-level placements and entrepreneurship opportunities in 10 major vocations, including hospitality, healthcare, beauty, construction, automobile repair, and electrical work. The Learn Now, Pay Later programme asks youth who have graduated from this intensive vocational training programme to set aside a token amount from their earnings to partially fund people who have no sponsorship from either the government or corporations.

> We want to challenge our trainees whose training has been funded: If you are being set for life, why don't you give back? This is going beyond the jobs and the skills. You are telling people that you can do more, that this vehicle that you got to reach progress is actually going to help you do something different. We are changing the model of mobilization.

Dr. Chavan's interest in information technology seems to have brought him to yet another turning point in his learning curve. The Hybrid Learning Programme, a tablet-based digital intervention initiative, places the control over learning in the hands of children. This program is one of Pratham's experiments to address the enormous variation in learning levels within each grade or age group in India. It aims to integrate technology with activity-based learning and a focus on individual learners.

> There is a bigger question that is important: With the exception of Sugata Mitra [best known for his "Hole in the Wall" experiment and "School in the Cloud" idea, is a Professor of Educational Technology at the School of Education, Communication and Language Sciences, Newcastle University, England], the world over, technology is being made to serve the current curriculum and current thinking about what education is. But that is not what this technology is about at all! This technology is about something completely else! It sets you free, it enables you to go in different directions and access different sources of information and learn something from it.

We are familiar with Victor Hugo's notion that "Nothing is more powerful than an idea whose time has come". Hearing stories of how children, often first-generation learners, have used the Pratham tablets in villages across India and of what it has sparked in them, it seems that putting smart technology in a child's hands could well be an idea whose time has come. Currently, the tablets are shared by community groups of children, from grade 5 to grade 8, in rural Maharashtra, Uttar Pradesh, and Rajasthan. Loaded with continually updated, high-quality content in local languages and local context, which is made available offline, the tablets encourage learners to navigate their own learning pathways. Playing interactive games in science and math on the Pratham tablets, children have come up with their own experiments, created model houses, an air conditioner even! Practising their English through role playing and parroting conversations from the Pratham tablets, these first-generation English speakers have even produced short skits. This has affirmed Dr. Chavan's suspicions:

It's one thing to say that the device is for learning, but it can be a trigger to do other things. So the impact of the device is not just how long you use the device, but what else it leads to. We didn't think about many things; for example, we never anticipated that children would start using the camera function the tablets come with! That is exactly what our bias does—no matter how liberated you are, you are a product of your time, and when we teach children, children actually learn something else. It is interesting how it triggers something in you, makes you want to learn something, or makes you want to show what you are learning.

The hybrid learning programme has spread from 400 villages in 2016–2017 to around 1,000 villages in 2017–2018.

A recent Pratham pilot to understand what a learning tool in the hands of a child can trigger asked children in rural communities in 25 villages to shoot videos on aspects of their environment. The idea was to build on the knowledge bank that these children already have, following from an idea that's turning into a conviction for Dr. Chavan.

We started out by saying "Every child in school and learning well". I went to "Every child not in school and learning well". And perhaps the biggest mistake we made was not to focus on mothers helping their children. This would have been a cost-free, huge impact methodology, where the mother wouldn't really have to teach yet was able to help. Today, with the tablets, that may actually happen. You don't have to teach, you just have to be there and say, "Good". This is what Sugata Mitra tells us and I agree. It is not about teaching; it is about challenging the student, triggering a process of learning in their mind. It isn't just the mother; it's people around. It takes a village to educate a child and people never take that seriously. Many children in rural areas are from agricultural families. They grow up playing in the mud, with plants and trees around them, looking after animals, and then you teach them parts of a plant or plant reproduction as part of a biology lesson! Instead, we should use the lesson to further their understanding. Nobody sees that, they just want to see if they have learned English.

Children in the pilot programme formed groups and enthusiastically shot videos. Their parents, too, got involved once the videos were completed, giving suggestions about how they could do it better, checking if the information was correct, and then the kids went back and reshot.

What this is doing is that it is triggering a process of learning in their minds. It also leads to something more important amongst the kids—this feeling of "I know", "I am somebody", the motivation to do better, to do different. The fun is in doing it yourself. This is phenomenal. When people ask, "So, what is the outcome of the project?", or "How are we going to measure it?", I think it's an interesting problem. Earlier, I could test whether that they had a twenty-word vocabulary and if they now have a four-hundred-word vocabulary, and judge my success based on that. But now, what has happened to that child's mind is something that I can't measure. The question then, is how to measure the confidence that children gain?

The big question that Dr. Chavan is now asking us, is this:

When you give people tools that set them free, the question then is, yes, freedom is good, but will you challenge them to do something different with it?

Selected works by Madhav Chavan

Chavan, M. (2012). Education is a for-profit business. *Economic Times,* 18 April. https://economictimes.indiatimes.com/education-is-a-for-profit-business-madhav-chava n-founder-ceo-pratham/articleshow/12711604.cms.

Chavan, M. (2013a). The push and pull of skilling. *Ideas for India*, 22 March.

Chavan, M. (2013b). There are no uniform solutions to education reform. *HuffPost*. 6 April. https://www.huffingtonpost.com/author/dr-madhav-chavan.

Chavan, M (2004). *Colours.* New Delhi: Pratham Books.

Chavan, M. (2016). Education in India has to change. *Business World,* 26 December. http://businessworld.in/article/Education-In-India-Has-To-Change-/26-12-2016-110305.

Selected speeches by Madhav Chavan

Chavan, M. (2011). Acceptance speech, Skoll Awards for Social Entrepreneurship. Skoll Foundation, 17 May.

Chavan, M. (2012). Acceptance speech. WISE Prize for Education Laureate 2012, Qatar Foundation, Doha.

Chavan, M. (2016). *Getting millions to learn: Discussing Read India.* Speech at Brookings Institution, 9 June.

Chavan, M. (2017). Speech at the Masters Convocation III, Teachers College, Columbia University, 17 May.

Websites

Pratham Education Foundation. Website. www.pratham.org.

The self-motivated pinball. Blog by Madhav Chavan. www.motivatedpinball.blogspot.com

References

Banerjee, A., & Duflo, E. (2017). *Opinion: Pushing evidence-based policymaking for the poor.* 16 October. http://www.livemint.com/Opinion/nYjG4JP2ve6YpeXkMb3AHJ/Pushing-evidencebased-policymaking-for-the-poor.html.

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