

In ZP Shedewadi school, Standard III students are placing ice cream sticks in different patterns and breaking down the idea of number place value. Visitors hover around, peering over the children on the floor but students are too gripped by the magic of mathematics to notice the tip-toeing adults. The class room is a chamber for wonder and children are the explorers. Where is the teacher, then? She is sitting close to one child, asking questions in order to bring him on par with the activity his peers have begun. Where are the tables and chairs? They've been cleared out so that children can move freely and work with one another. What kind of a school is this? This is a constructivist school in Kumathe, Satara. Welcome.

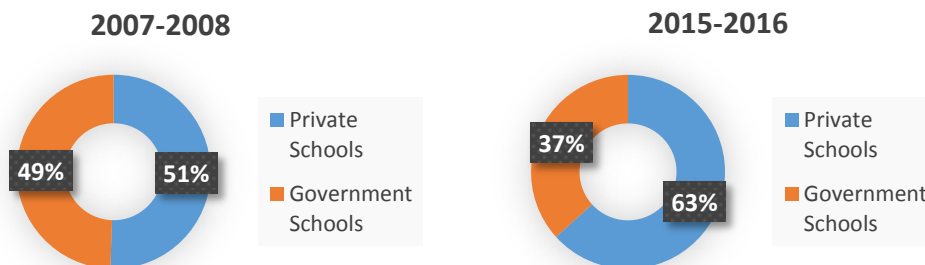


Kumathe beat comprises forty government schools spread across a cluster of rain fed agricultural villages. These schools have lit the torch for Constructivism across the State. Walk into any class room in Kumathe and children will pause only for a moment to look at you before returning to their activities. Teachers will welcome you politely but stay focussed on their students instead of setting them aside to attend to you. The school building will be resource rich, clean and colourful and an impalpable vibrancy will infect you. Given the challenges prevalent in the public education system, how did these schools come to be this way?

***Acceptance is the first step towards change***

Much has been written about the poor state of public education in India. In a secular trend, public schools across the country are seeing falling enrolment year on year while low cost private schools are thriving in an education hungry market. 93% of parents surveyed by IMRB in 2010 said they saved for their children’s education, with 55% starting to save as soon as their child was born<sup>1</sup>. Much of this saving goes towards paying fees at private schools. In Maharashtra, as in other parts of India, parents with higher affordability are abandoning the public school system in favour of low cost private schools.

**Maharashtra: Enrolment (Elementary)**



Source: UDISE 2014-15

In the wake of the Right to Education Act (2009), Government of Maharashtra initiated education reform and shored up state schools; several RTE indicators in Local Body and Government schools improved year-on-year starting in 2010<sup>2</sup>. Yet, low student achievement remained a source of concern for the Education Department. Around that time, far from the corridors of policy, a small beat in Satara started to experiment with a new approach to teaching and learning in its schools. In 2012, Mrs. Pratibha Bharade, Extension Officer, Kumathe Beat, noticed that in the schools under her charge, teaching was taking place, but learning was missing; specifically, the kind of learning that was joyful in nature.

“In 2003, when I first came to Satara, children were malnourished and families struggled with food security. This hampered student attendance and children’s ability to concentrate in class. Through various initiatives, which included organic farming and distribution of deworming tablets, nutritional deficiency in children was remedied. This took almost eight years. However, once that was done, many children still

<sup>1</sup> ‘Young Scholar Insights’, IMRB, 2010

<sup>2</sup> UDISE 2013-2014

remained irregular. I realised then that the school was not attracting them. And it was time to change that.”

Pratibha gained exposure to the philosophy of constructivism through her involvement in curriculum design activities at the State level and visits she undertook to NGO run schools that were implementing constructivism in spirit. Determined to turn her schools around, in 2012, Pratibha initiated the use of constructivism as a teaching approach across forty schools in her beat.

### **Constructivism: Principles of Learning**

Constructivism is a philosophical viewpoint about the nature of knowing. It focuses on how humans make meaning in relation to the interaction between their experiences and their ideas. Specific to education, Constructivism as a pedagogic approach is broadly congruent with the following principles of learning:-

- ❖ Every child is unique and hence, has a different learning style and pace
- ❖ Children learn (more) by doing
- ❖ A fear free environment promotes learning (emotional security enables learning)
- ❖ Peer learning is crucial for educational development
- ❖ Learning is not compartmentalized (not bound by subjects)
- ❖ Learning happens all the time (schools / teachers, parents support it)
- ❖ Making mistakes is a part of learning
- ❖ Learning is natural therefore teachers need to be facilitators not instructors

### ***Global solution, local application***

Public education in India is one of the largest school systems in the world. With over 14 lakh schools and 20 crore children<sup>3</sup>, State governments cater to the educational needs of the most disadvantaged students. The typical government school class room teems with first generation learners who are at multiple grades and levels (MGML) of learning. This throws up a unique challenge for teachers where they need to cater to different learning needs of individual children. Unfortunately, current teacher preparation programs do not equip teachers for the pedagogic challenge of MGML teaching. As a result, teachers and students collectively founder. In Kumathe too, the scenario was the same with many children not performing at grade level. In order to improve the situation on the ground, one

Extension Officer decided to bring about a learning revolution in the schools under her charge.

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***Constructivism required a metamorphosis within the teaching profession where teachers shifted from being instructors to facilitators***

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Pratibha Bharade, Extension officer, Kumathe Beat, embarked upon this journey by studying the principles of Constructivism as a pedagogic approach, and subsequently deciding to implement it in her beat. She consulted books and experts and also visited schools run by NGOs that were using a constructivist approach to teaching. From her study, it became clear that constructivism or ‘*dnyanrathanawaad*’ went beyond changing the props used for teaching – it was not enough to give

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<sup>3</sup> National Education Policy (Draft), 2016

students learning materials and paint class rooms beautifully. Constructivism required a metamorphosis within the teaching profession where teachers shifted from being instructors to facilitators. Moreover, teachers needed to recognize that learning is natural and all children can learn, that making mistakes is integral to the process of learning and that children learn best when they are engaged in a fear-free environment.

The concept of Constructivism as an approach is not new in the education space. A child centred instructional approach is stated as the normative pedagogy in the National Curriculum Framework (2005). However, many schools across the country have not been able to implement this approach as it requires a much deeper shift in practice. Therefore, to ensure that teachers in Kumathe did not simply implement cosmetic aspects of constructivism but instead, imbibed the mindset required for being an effective facilitator, Pratibha called a meeting of all teachers. At this meeting, teachers discussed how the state curriculum could be broken down and transacted using principles of learning rooted in constructivism. By putting the main concern of teachers – the curriculum – at the centre of the discussion, Pratibha engendered greater teacher cooperation and interest. As a result, teachers contributed significantly and helped design class room activities that were rooted in the local context.

### ***Together we can***

Following the introduction of dnyanrathanwad in Kumathe, monthly meetings were held for peer sharing and troubleshooting. At these meetings, teachers shared the successes and challenges of transacting a state curriculum using child-friendly teaching approaches. These meetings were instrumental in building teacher commitment towards implementing something new and difficult. These meetings also served as a mechanism for review where teachers would share best practices and school visits were planned. Till date, every month, Pratibha visits each school twice and at the end of the year, a refresher is held for teachers. This periodic reinforcement has played an important role in developing teachers in Kumathe into strong class room facilitators.

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If you speak with any teacher in Kumathe, the sense of purpose is clear and a spirit of team work abounds. Even though adapting to a new teaching approach was initially difficult, Pratibha led by example by devoting all the school hours to school work and completing administrative work in after school hours. When asked how her teachers cope with teaching and the existing administrative load – something that is a common complaint among government school teachers – Pratibha replied “It is about the attitude with which some one works. I use half my day for school work and the other half for administrative work. My teachers also do the same.”

However, in any system, full cooperation is rare. On tackling difficult teachers, Pratibha takes an empathetic approach. “If a teacher is refusing to work, there is always a genuine reason or they are

seeing the problem differently. Our job as officers is to understand their obstacles and their perspectives. By doing this, over a period of time, we achieve a meeting of the minds.” In addition to being sensitive to teacher needs, Pratibha also keeps channels of communication open by following up more frequently with new teachers and ensures their questions/concerns are addressed. This time intensive support has played a big role in enabling teachers to improve their class room practice.

### ***It takes a village to raise a child***

The most important stakeholder in the education of a child is his or her parent. In Kumathe, parents were taken into confidence and made allies in the process of change. At the outset, a meeting was held with all parents where teachers and officers explained the reform they were looking to make in schools. They walked parents through the basic tenets of Constructivism and stressed the need for reinforcement of learning at home. At this meeting, Pratibha shares, the school staff confessed upfront that this pedagogy was new and experimental but that children would learn better and teachers were willing to shoulder that responsibility.

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*...enrolment increased in twenty one schools in  
Kumathe beat in 2014*

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When the process of change started, results were initially slow to come. But overtime, parents have started pulling children out of Satara schools and enrolling them in the neighbourhood government school. Parents who have children enrolled in private schools are being able to see the difference in learning between their ward and another who is attending the Zilla Parishad school in Kumathe. As a result, enrolment increased in twenty one schools in Kumathe beat in 2014, and in eighteen schools in 2015. Furthermore, all children completed the Baseline learning assessment conducted by the Maharashtra State Council of Education, Research and Training (MSCERT) in 2015 and were found to be at grade level in all forty schools in Kumathe beat.

### ***The road ahead***

In June 2015, the School Education Department launched Pragat Shaikshanik Maharashtra (PSM) – a comprehensive reform targeting the transformation of all government schools in the state. The accompanying Government Resolution (GR)<sup>4</sup> laid great emphasis on the adoption of child centred class room practice and spot lit Kumathe as a model for reference. In the past year, over 50,000 teachers from all over Maharashtra have visited Kumathe beat on their own expense in order to witness the change on the ground and gain inspiration and insight. In the span of a year, several blocks/clusters across Maharashtra have adopted Constructivist teaching methods on the lines of Kumathe, and this is bringing about change in class rooms. The teaching approach implemented in Kumathe has also informed the design of programmatic support being provided by non-government organisations. Therefore, under the canopy of PSM, a bulk of programmatic work is now aligned around constructivist principles of learning and a consistent approach is being followed for educational transformation.

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<sup>4</sup>“Pragat Shaikshanik Maharashtra”, Government Resolution, 12 June, 2015

In conclusion, it is correct to say that the work happening in Kumathe Beat is noteworthy. Kumathe has showcased educational innovation *within* the government ecosystem, and that inspires teachers and officers because, unlike model schools or private schools, the schools in Kumathe have achieved results while facing the same conditions and constraints as other government schools in Maharashtra.



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