

A Million Children Now!

Transforming School Education in India through the iDiscoveri XSEED Living Knowledge System

*Innovations Case Narrative:
iDiscoveri*

In India, 220 million children are going to school. A majority of them end up without mastering core concepts, miss the opportunity to apply knowledge to real life problems, and fail to develop the confidence they need to succeed in careers. So only a small fraction of India's students gain access to higher education and end up in viable careers. A host of problems may contribute to this situation: under-resourced schools, poorly trained teachers, constricting government policies, and poorly implemented programs. There is plenty of literature on the scale of this problem and a history of unsuccessful attempts at reform.

So, while many in our country tend to criticize the quality of teachers or the failings of policymakers, we at iDiscoveri decided to create a clear alternative that actually works in the classroom, in the form of our XSEED Living Knowledge System. To make this happen, we addressed three challenges.

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This article borrows from the thinking and writing of many at iDiscoveri over the past decade, particularly Ashish Rajpal, iDiscoveri's founder and thought leader.

- First, we wanted to alter what actually happens inside a classroom between a teacher and her students, in the “*last mile*” of education delivery. Currently “teaching” is a two-step process where a teacher “tells” and the student “listens and memorizes.” We replaced this with a more effective process that gets children to understand and apply what they learn.
- Second, we developed a *practical toolkit* that all teachers can use in the classroom. Teachers in India come into the classroom without quality pre-service training; they are also underpaid and are often overworked, managing classrooms of thirty to fifty children. We gave the same teachers daily how-to teaching plans and application-oriented worksheets and manipulatives, and trained them to teach and assess children more effectively.
- Third, we wanted to ensure that our solutions *worked at scale*. There are many examples of “progressive schools” that educate a small number of children very well, but are unlikely to impact the broader domain. We have been able to implement this solution in hundreds of mainstream schools by empowering schools with robust instructional processes, in-house master trainers, and year-round academic support.

Today, as this article is being written, XSEED is being implemented in over 400 schools across the country, schools that enroll close to 140,000 learners. The impact of the program is visible in the learning of children: improved understanding of core concepts and better reasoning and communication skills. This case study documents our process of creating and scaling this practical innovation in teaching and learning. It is also the tale of a decade-long journey taken by a group of social entrepreneurs, including many who came from outside of education, to renew a domain that can be resistant to change. It provides evidence to show how social impact can be facilitated by for-profit business and quality can coincide with scale.

GENESIS (2001-2002)

We grew up in the 1980s and 1990s in middle-class homes in India, where we saw economic and social hardships around us. By our late twenties and early thirties, we had managed to fulfill our dreams of gaining admission to a good college, securing a well-paying corporate job, and living comfortably in North America or Europe.

As Ashish Rajpal (current CEO and coauthor) notes, “I grew up in Delhi and spent my teenage years trekking in the mountains, and that was my first contact with the ‘other’ India. That led to some kind of desire to do socially relevant work. During college, I hung around NGOs, doing internships in Uttarakhand (a northern state). But I came from a background where I needed to get a job quickly, so this NGO romance didn’t last long. After earning an MBA from XLRI (a management institute), I worked for Proctor & Gamble in India, Sun Interbrew in Russia, and then finally as the worldwide marketing director for Groupe Danone in Paris.”

Despite having achieved what we always wished for, something was missing in our work lives—especially a chance to make a difference to others. School education presented us with a challenge and an opportunity to contribute—almost like “a nail in search of a hammer.” This interest in education was sparked by transitions in our personal lives. For Ashish, experiencing his own children brought the realization that while children are born different, the way they are taught is the same. Having suffered through years of cramming textbooks in India, I felt liberated in graduate school in America, where students were free to ask questions, collaborate with each other, and work on practical projects to master their subjects. I started asking, what would it take for this kind of education to be made available to every child in India?

Convinced that we had found our true calling in education, we resigned from our corporate jobs in 2001 and enrolled in a master’s program at the Harvard Graduate School of Education. Our paths crossed in the dorm where we lived as graduate students. A few conversations later, we were clear that we would go back to India and work together on something important.

The first blueprint for this plan was drawn on a paper napkin at a cheap Vietnamese restaurant we frequented in Harvard Square. On it we scribbled a hub-and-spoke model on a map of India that represented the spread of know-how for a “new education” that would go into schools in every district in our country and create visible change in the way children learn. The basic principles of this education would be built around the ideas of differences in children and learning based on doing. Our ideas were undoubtedly influenced by our teachers: Howard Gardner, the father of the multiple intelligences theory; Eleanor Duckworth, herself a student of the legendary Jean Piaget, who emphasized discovery in the learning process; and Ronald Heifetz, the charismatic proponent of a more personal and “difficult” leadership.

Ashish was very clear that a for-profit economic model would be our means, one that would go to scale and sustain itself over a long period. Our work needed the best and brightest professionals and significant investments in research and advocacy. This could only be achieved through a commercially viable model. India is littered with well-meaning but unsuccessful initiatives that have dried up due to insufficient donor funds or the disinterest of nonpaying consumers. Around this time, in the early 2000s, the idea of social enterprise was gaining acceptance. Iqbal Quadir’s Grameen Phone, right next door in rural Bangladesh, was a living exam-

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Teacher Training Programs Using Experience and Reflection.

ple that the poor are willing to pay for and can benefit from cutting-edge technology. We thought it should be tried out in education.

So iDiscoveri was conceived as a “social enterprise with a mission to renew education in India.” With this vision in our heads and graduate diplomas in our hands, we returned to India in the summer of 2002.

EXPERIMENTATION (2002-2006)

The platform from which iDiscoveri initially launched its work in schools was a summer camping company (now called Youreka) set up in 1996 by Ashish and a few business school classmates. We saw the connections between our “constructivist” classroom discussions at Harvard and the learning experiences of children in camp where they did things with their own hands without being constantly fed information by adults. We felt that we could take this kind of learning into the way schools teach every day.

Once we started visiting schools, we figured out that the mindsets and capacities of existing teachers were the biggest obstacles to change. Teaching is not a well-paid profession in India and does not attract the best talent. In India, teachers gain pre-service certification through the Bachelor in Education (B.Ed.) program, a highly theoretical course that does not equip teachers to teach in the classroom. Once inside the classroom, teachers are left to struggle on their own with a large number of children, with the textbook as their only support. Re-educating existing teachers therefore seemed to be the logical place to start.

However, we found it difficult going to convince schools to retrain their teachers and, more importantly, to pay for such a service. We set up meetings with principals of all the leading schools in North India to speak about how we could train their teachers to bring thinking and doing into their classrooms. Many kept us waiting outside their offices for hours before dismissing us as “young people with ideas that would not work in a real school, especially with teachers who were set in their ways.”

One of our noticeable breakthroughs came when Kanti Bajpai, the former headmaster of the Doon School, one of the best-known schools in India, gave us a chance to run a weeklong teacher-training workshop for his teachers. These were some of the most experienced teachers in the country. Over ten days, we put them through learning activities and simulations and got them to engage with ideas around child development, multiple intelligences, experiential learning, and personal growth. We received a very enthusiastic response from the teachers, many of whom had never attended such a program before. Mr. Bajpai noted, “Even the most hardboiled amongst us admitted that it was the best teachers’ workshop we had ever attended.”

Over the next three years, we put our energy into in-service teacher training. The method involved first challenging teachers’ mindsets to create openness to change (“boil”) and then introducing them to new educational practices that could make their classrooms different (“simmer”). We began with short workshops of a few days, then started conducting longer interventions where teachers spent a few weeks learning with us. In a few years, we had touched close to 2,000 teachers through various training programs. We also experimented with pre-service training by trying to launch a program that would attract and train the brightest talent into teaching. While we designed and delivered a powerful learning experience, we had difficulty attracting a large number of students and getting government affiliation. Using teacher training as our core strength, we started tapping into other opportunities that came our way. Training school principals and owners in leadership skills was a natural next step. We could get some of these leaders to understand the need to change and drive the rest of the organization.

Some of the more enterprising school owners got us to work on longer-term projects, such as setting up new schools, for which they needed help on everything: facility design, recruiting, training, branding, and project management. We started in 2004 with a school in Chandigarh, in the state of Punjab in Northern India, and by 2006 we had collaborated on setting up several new schools across the country. We saw these projects as a way to learn the workings of a school from the inside

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out, and they were certainly more financially rewarding than doing a short workshop. However, these projects consumed us. Ronny Gulati (one of the cofounders) virtually stayed inside one of the schools through the initial months to get it going.

One of the most fortunate outcomes of this phase of our journey was that we started to attract a team with a remarkable combination of passion and pedigree. Young men and many women with degrees from leading institutes, like the Indian Institute of Management, Harvard, and Cambridge University, quit high-paying

corporate jobs and came to work for us, often at a fraction of their previous salaries. Our specialized work in schools also started attracting former teachers, principals, and child development experts, who brought insider knowledge from the world of education. A common thread among many of these people was a desire to contribute and a willingness to persist against tough odds.

Finally, after four years, we found the going better than when we started. With some very encouraging feedback from the schools where we

had done trained training, we felt we were beginning to make a difference. The revenues from teacher training finally started to break even with our costs. Our team of committed people ensured that the organization would finally sustain itself beyond the initial founding group.

STALEMATE AND INFLECTION

The initial taste of success notwithstanding, we also felt a continuing sense of discomfort. Every year we would ask the same few questions at our annual planning retreat, where we revisited our vision and the strategy: Are we making a visible difference in the classroom? Will our training scale up to hundreds of schools and thousands of children? Is there one thing we could focus all our energies on that could make us a successful enterprise instead of trying our hand with many small projects?

We first tasted our own pudding when we went to seek honest feedback from our customers: school principals whose teachers we had been trained. After exchanging pleasantries, we heard a common story:

Your training programs gave a momentary high for our teachers. They came back charged and excited and felt that the experience was one of the best in their lives. Yet, little changed in their classrooms. The more motivated ones started a few new activities with the children that got consumed later in the daily routine of completing the textbooks, tests, and

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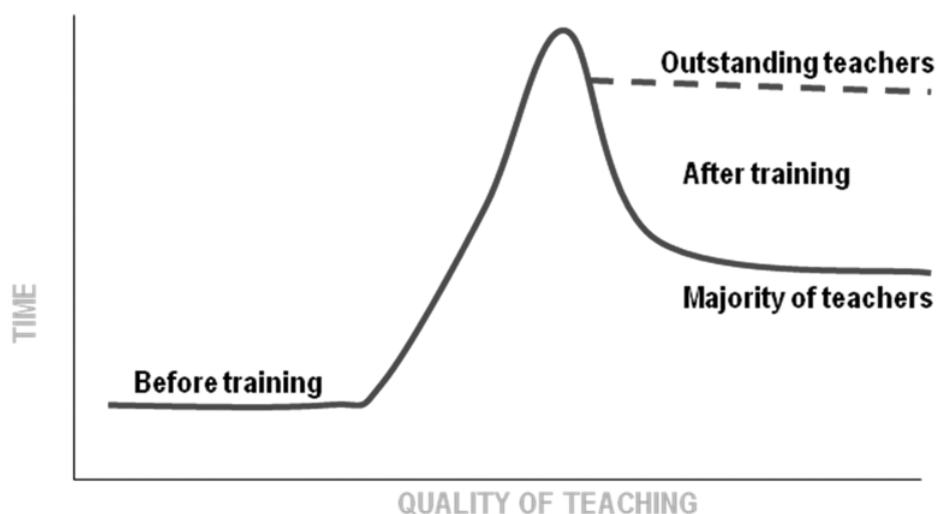


Figure 1. The Short-Lived Impact of Teacher Training.

dealing with parents. For the less capable ones, the training made almost no difference at all.

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We had to confront the fact that stand-alone teacher training was not changing what actually happens inside classrooms, nor could it reach thousands of schools in a sustainable manner (See Figure 1.) Something was just not right in the way we were working. For many of us it was hard news to swallow and led to debates and heartburn. A few among us lamented, "Are we giving up on the grand vision of creating an ideal teacher?"

XSEED IS CONCEIVED (2006):

A WIDESPREAD CHANGE FORMULA AND A PRACTICAL TOOL KIT

The clue to the solution lay in the question from that young teacher: "But can you show me how to teach this class better than I do?" Her innocent question kept coming back to us. If we could actually provide her the tools to teach her class better than she was doing, we could perhaps reach out to all the country's one million schools and the five million teachers—a market size one could only dream of. As simple as it may sound, this was a big insight.

We put together a small team of old-timers and new hires to push our thinking on "cracking the code" of how to marry quality with scale. In the winter of 2006, we locked ourselves up in a small room in our Delhi headquarters to cook up the future of our company. The group threw out many ideas and debated them

until we were tired. We also called our customers in schools to test whether the ideas would work—and if they were willing to pay for them.

One idea was to establish our own network of innovative schools that had hand-picked teachers, small classes, and good facilities. Another option was to create our own teacher-training university that would attract and train passionate young people before they went into schools. Someone suggested that we only focus on supplementary education programs that reach out to homes. Setting up our own school network seemed exciting, but required a huge amount of capital infusion and operations management that was not our forte. Our own teacher-training university was idealistic but not viable, given strict government regulations, and it would be difficult to generate sustainable revenues from student fees. If we only focused on a supplementary program for children, we could create a good market but fail to change how children are taught in school, effectively leading us away from the fundamental problem we were trying to solve.

After throwing all these unfeasible ideas out the door, we clearly realized that the need of the hour was a practical solution for good teaching that worked within the realities of the existing schools and the teachers who work in them. The constraints within which we had to make our solution work were a state-prescribed syllabus, 45-minute teaching periods, the varying skills and subject knowledge of teachers, and a group of 30-40 children with varying learning levels.

We realized that the core problem was not with the children, the teachers, or the system. We also saw three main reasons the children were not learning:

Learning is a multi-step process that we reduce to a single step: memorizing. The typical class forces children to listen to a one-time “broadcast” on every topic and expects them to memorize large amounts of information for exams. All research shows that long-lasting learning occurs when children go through critical phases of experience, reflection, analysis, and action. If we deploy all the steps, then learning will happen more easily and naturally.

Children are different, but we expect them all to learn in the same way. There are many kinds of children in the classroom, each with an individual learning preference or style. When their specific learning needs are met, children begin to learn and blossom. Each concept must be presented in various ways so that each child can grasp it, which will result in a much better performance from all children.

There is no practical model of good teaching that all teachers can follow. While everyone criticizes the quality and motivation of teachers, there is no clear alternative they can adopt that will improve their work. While a few exceptionally motivated teachers may try new things or use innovative practices, these are not replicable. Training programs may provide momentary support or excitement, but they do not help teachers improve their everyday performance. Hence, over time, most teachers are left helpless and frustrated.

Once we are clear about what “good teaching” is (2 and 3 above), we can train and equip all teachers *uniformly* to practice it (3).

Before we closed for the new year, we had developed the recipe for our scale-up: a complete tool kit for good teaching that could significantly alter how children

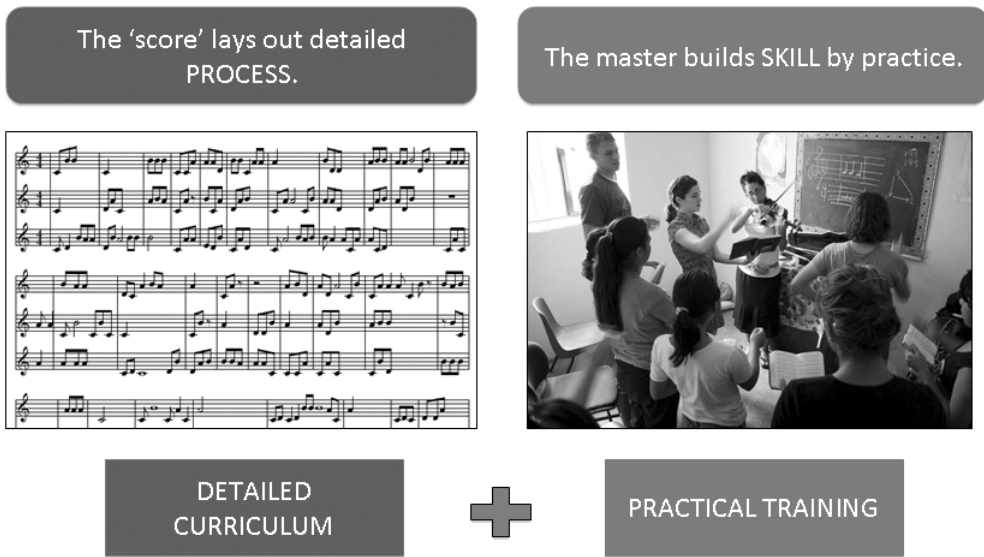


Figure 2. Theory of Change = Process (curriculum) + Skills (training)

learn, and one that could work in hundreds of schools. Ashish summarized our plan in an internal memo:

THE MISSION: An education for nurturing confident, characterful, life-long learners, who have clarity on concepts and concern for community.

PRESENT VISION: Take this education to one million children across India by 2010.

IDEA: An iDiscoveri Program consisting of a class-wise innovative curriculum, a certified “to use” training program in innovative teaching, and a positive parenting support kit which shows visible change in child’s learning in 100 days. Total cost not exceeding Rs 10 per day/ per child.

Thus the new iDiscoveri Program was conceived. The fundamental innovation we wanted to inject into our work was a structured curriculum that provided a step-by-step teaching process, supported by practical training that provided teachers with the pedagogical skills to manage their classrooms. An easy way for us to explain this idea is with the metaphor of music, where a musician learns the skills of playing an instrument by practicing with the master and has a score that provides the detailed process of making music. What we had been missing was the equivalent of a musical score for good teaching: a detailed, systematic process for how to teach every concept in a way that all children understand (See Figure 2.)

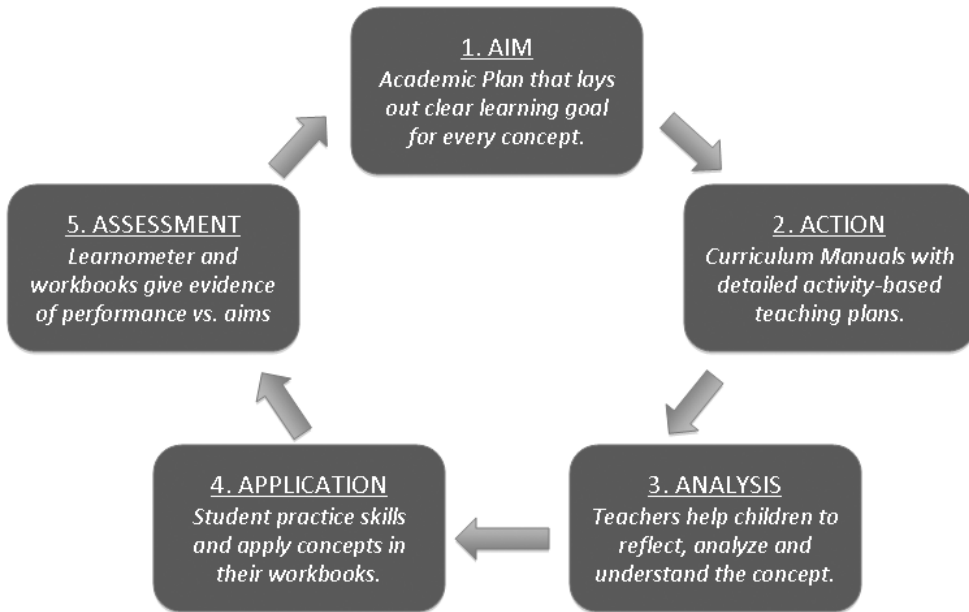


Figure 3 . The 5-Step Learning Process.

BUILDING THE XSEED LIVING KNOWLEDGE SYSTEM (2007-2008)

In January 2007, we got down to work on actually building the new product. First we had to choose a name, and we decided on XSEED, which symbolized the Living Knowledge System we were to create. “X” stood for the real-world experience we were bringing to the learning of academic concepts. “SEED” stood for the formative years of the children we wanted to reach, those in grades K-8.

The program was designed so that each child would learn each concept through the 5-Step Learning Method: aim, action, analyze, apply, assess. XSEED would provide a school with a learning-teaching tool kit for the 5-step process, and each tool was designed to lead teachers and students through one step of the learning process (See Figure 3.)

- Academic Plan clarifies the aim and objective of every topic to be taught in each subject (English, math, science, social science) and across all grades (nursery through Class VII).
- Detailed Curriculum Manuals for teachers on every concept, totaling over 3,000 lesson plans that lay out in great detail the teaching process for every concept.
- Student Workbooks and Content Books give children the opportunity to apply their skills to real-life situations and demonstrate their understanding of the concepts.
- Practice-based Training includes a 40-hour *Certificate in Innovative Teaching*

teacher-training program, and a 100-hour *Certificate in Instructional Leadership* program for the academic head to prepare the teachers with the teaching methods, classroom management techniques, and curriculum.

The Learnometer student assessment program is a skill-based test administered to children every quarter to measure their progress in learning the critical skills taught in the curriculum; the results are given to them and their parents.

We jumped into action to create the first prototype so we could pilot it in schools in a few months. Our first challenge was to build a team to develop the program. Our trainer-heavy bench lacked the subject-matter expertise we needed, so we hunted around for teachers with hands-on experience teaching mathematics, science, social science, and English to primary school children using innovative methods; they also needed the patience to translate this “art” of teaching into a detailed curriculum.

Ashish personally led the creation process, to set an example of embracing change. He started teaching fourth grade at a local school in order to experience and understand what really happens to a teacher when he enters his classroom. He had to make difficult decisions, to rip apart some of our existing practices that did not contribute directly to children’s learning, and he challenged existing mindsets in the team. He traveled across the world to learn from similar efforts and recruit people from across the spectrum. When we piloted the first training programs and lesson plans, he ran the first sessions himself to demonstrate the newer methods. Later, when someone asked how he did eight years of work in two, he would answer, “I was in the kitchen just like everyone else—that’s why.”

Making the academic plan compatible across boards. One of the first design challenges we solved was to create an academic plan compatible with the various education systems in our country. India has two national boards (CBSE and ICSE) and numerous regional boards for every state, which mandate the syllabus for various subjects. The challenge was to create a “how-to-teach” method to go along with these various syllabi. A team led by Shweta (one of the coauthors) first took apart these syllabi topic by topic, then looked at India’s National Curriculum Framework and various other standards and collated a set of topical areas that were common to various systems. This commonality of curricular goals in primary education made our work simpler.

Creating 4,000 experiential lesson plans. Then came the core task of translating our aims into detailed lesson plans that would go into the teachers’ curriculum manuals. As we would later find out, the lesson plans became the single most useful component of the entire program—and the most difficult to develop. Teachers in India teach 3-5 lessons of 40-45 minutes every week to complete 10-15 topics per subject. Our goal was to provide a well-researched teaching plan for each of these lessons so that teachers could walk into their classes every day with a recipe for success. The fundamental principle of each lesson plan was the experiential learning cycle proposed by David Kolb that included experience, reflection, analysis, and application. Each lesson plan was reviewed by experts and tested in classrooms before it went into production. (See figure 4, next page.)

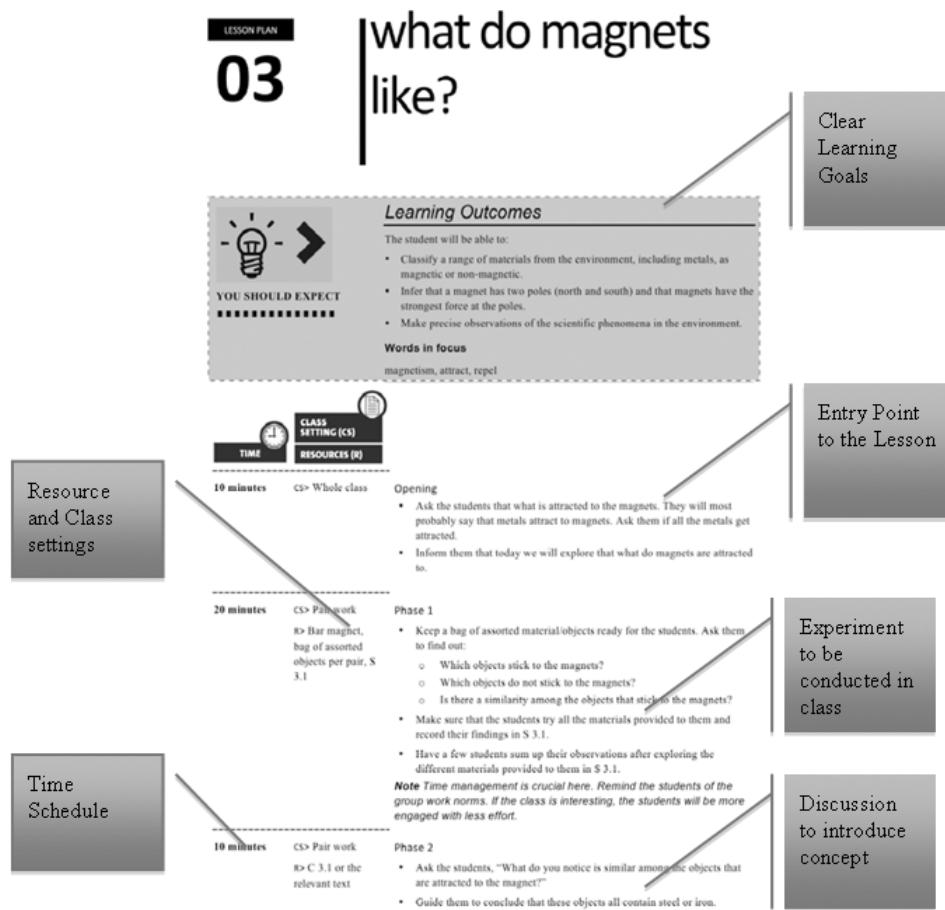


Figure 4. Curriculum Manuals with 4,000 Detailed Experiential Lesson Plans.

The guiding principle of our curriculum was to ignite a child’s natural curiosity to learn and to build understanding by doing. Each subject followed a slightly different approach, keeping the basic principle of experiential learning in mind.

- In science, children would form a hypothesis about a natural phenomenon, conduct an experiment, observe results, and derive conclusions.
- In mathematics, children learned mathematical concepts in relation to real-life experiences, used manipulatives to bring abstractions to life, and practiced analytical applications.
- In social science, children collected information about their community and came to understand the historical patterns that influence today’s world.
- In English, children were immersed in ways to apply the language in real life: doing creative writing, conducting conversations, and participating in role-plays.

Application-oriented student workbooks. The last part of developing the program was to tie the student work and assessment together. This issue arose when we went back to a few schools midway through the development process. The schools appreciated the value of teacher tools and training, but asked for more help on student work and assessment. As a result, we added detailed student workbooks that provided a selection of activities for children. They also provided assessment tools to help parents and children learn how the child was doing, which also helped guide teachers and parents in creating extra supports for children who needed them.

Training programs that have practical utility in minimum contact time. A second working group was entrusted to design a training program to support use of the curriculum. Though training was the traditional strength of iDiscoveri, we had set up a tough task for design:

- Training had to focus on getting the teacher ready for delivery in the classroom rather than on introducing theoretical constructs.
- The training modules had to get the teacher familiar with various parts of XSEED: the academic plan, lesson plans, and workbooks.
- The training program had to be presented in hundreds of locations with consistent quality.

The training team came up with some breakthrough solutions, made possible by technology. We planned a series of videos for teachers, shot in actual classroom situations, that would demonstrate in “cookbook fashion” how to teach using the XSEED methods. To shoot the demo videos, we ran XSEED workshops with children. We obtained 4,200 minutes of footage from these workshops. 100 minutes of instruction was distilled from this—to guide XSEED teachers, and help our trainers communicate the essence of XSEED. The training program was broken into modules, each intended to give teachers a tangible tool they could use in the classroom. The emphasis was on demonstration and practice, rather than theory. Several hundred hours of training content was distilled into 40 hours of distilled content.

The biggest of all challenges was limited development timelines. To keep everyone on the same page, we created a series of meetings to align various teams: the project management, advocacy, research, curriculum, and training team leaders met daily and weekly to measure their progress. Ronny, one of our co-Founders, stepped in to manage a complex design and delivery project that included acquiring many new capabilities: editing, desktop publishing, printing, and material shipment. The full program was developed between December 2006 and July 2008. From July 2007 onwards we provided it, module by module, to our initial two or three beta customers.

SELLING THE IDEA AND GOING TO SCALE (2007-2010)

The business model was simple. The school would pay a one-time fee to license the curriculum and receive the training, and we would conduct training and provide



Figure 5. Focus on Tamil Nadu and Andhra Pradesh, the South India education hub.

ongoing user support. Parents would buy the student workbooks and content books. If the school was satisfied, it would renew the contract for a nominal fee, and parents would order new student packs.

Even before the first set of curriculum manuals rolled out, our advocacy and sales teams started hitting the road, eager to sign up our first customers in schools. Every spare person who was not writing curriculum was recruited to the team. Our first task was to get some early adopters. We had some existing relationships with schools that had previously experienced our work in teacher training and school setup projects. We called on them to seek a venue to pilot our new program. We found one school in New Delhi and another in Mangalore in South India that were willing to try out the new program, based on our past record of accomplishment. XSEED had its first paying customer in the summer of 2007.

The going was much more difficult when we started pitching the concept to schools that did not know us. We targeted up-market schools in the New Delhi area where our headquarters are located. We went from school to school making PowerPoint presentations about the depth of research behind our program and explaining how experiential learning could impact their children's education. We

encountered a pattern of resistance to our proposition that was quite disheartening.

We got feedback from people who had heard our pitch and it took us a while to figure out what was going wrong. Many felt we were presenting an abstract idea when what they really needed was to touch and feel the product. We also spoke too much about the sophistication of the product and failed to communicate the benefits that schools cared about. Another important problem was that we were asking for an up-front investment of up to 600,000 rupees (more than \$13,000 USD) that school principals did not have the authority to spend. Over the next 18 months, we kept refining our basic selling strategy to overcome these barriers. During these early years, we gathered some key market insights that proved useful later on. We also made several adjustments to our product: we made it more tangible by providing hands-on demonstration kits; we made a documentary of classrooms where XSEED was running, which showed that children were more engaged; and we communicated a competitive edge to private schools that were looking for a product to make their school stand out in a cluttered market.

By the summer of 2008, we had signed up 32 schools for the XSEED program, up from three the first year, and we were ready for a big push to scale up our presence in the market. By then we had a senior management team in place, had resources to invest in marketing, and had the confidence to endure a long, drawn-out struggle. Now we needed to make some critical choices, and in hindsight, the choices we made in 2007-2010 were critical to how we grew to our present scale. Here are four of them.

Focus on Tamil Nadu and Andhra Pradesh, the South India education hub (See Figure 5.) India is a diverse country; its 28 states have vastly different cultures and customs, and hence different economic and social norms. Many of the schools that signed up with us early on were located in two big states in Southern India: Andhra Pradesh and Tamil Nadu. Both states had many private English schools, estimated at close to 15,000 just between the two states. Appreciation for progressive thinking was evident both in the way the school owners invested in their schools and in the parents' obvious interest in their children's learning. We sensed an opportunity. We established offices in these states and started reaching out to hundreds of schools in every district. We found a warmer reception in mainstream schools in smaller towns, where the gap between poor quality schooling and rising parental aspirations was the highest. After two years of determined effort, more than 50 percent of our user base is in these two states—where we have reached over 200 schools.

Build a persistent sales and academic support team. Our education officers led the effort to generate business, and education coaches supported implementation in the schools, which resulted in a potent distribution network built around people who embody the XSEED values of intellect and conviction. They traveled to schools in small towns by overnight trains and on rickety government buses. It sometimes took dozens of meetings with owners, principals, teachers, and parents before a school decided to sign up; we managed to sign one out of ten schools we

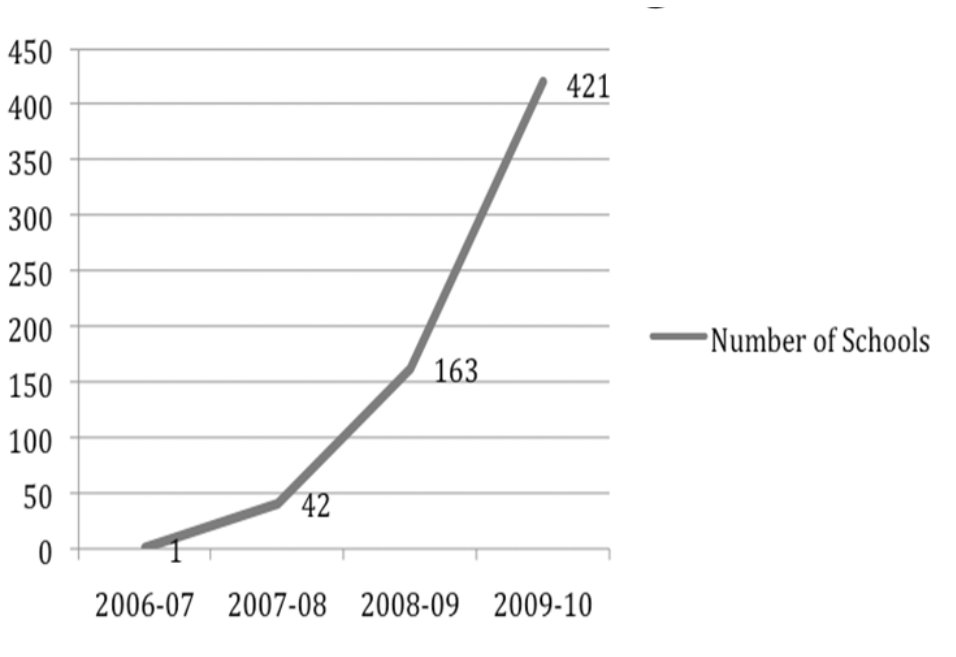


Figure 6. Number of Schools Using XSEED.

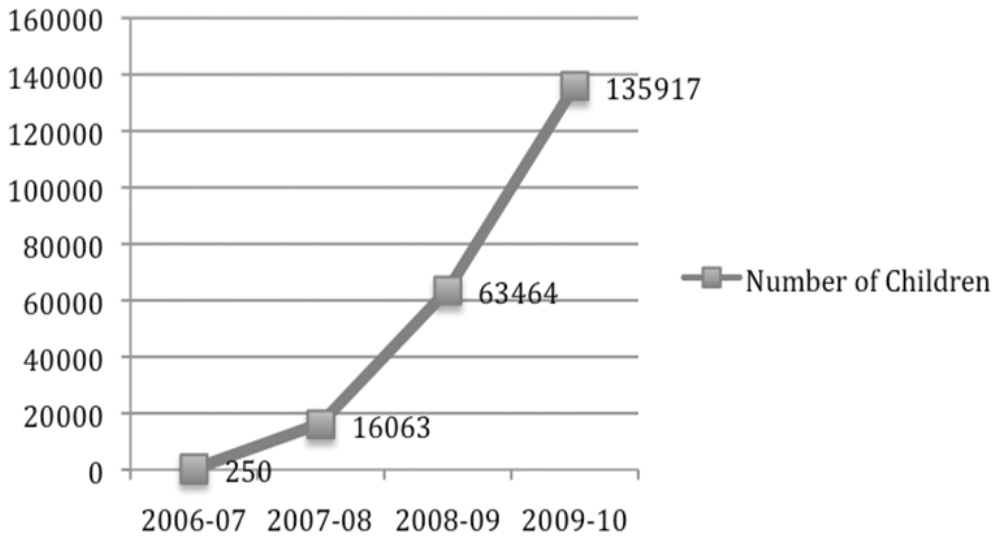


Figure 7. Number of Children Enrolled.

visited. Over time we recruited young people in their mid-twenties with MBAs and teaching backgrounds who increased our reach into every district. They joined our seasoned industry professionals who were leading the business and providing a much-needed commercial edge to our pitch.

Spread awareness and change mindsets through advocacy seminars, or “clinics.” We realized early on that we were not just selling an educational product but also trying to create a demand for change in the way schools have been working for many decades. We experimented with various ways to promote our product, eventually finding it most effective to invite school owners and principals to discuss the changes happening in education and to witness how XSEED works in the classroom. In that informal setting, we got to know what schools really needed from us.

Have early adopters play evangelist. Within few months of implementing the program in schools, we had started getting positive reviews from the schools about the visible impact we were creating in their classrooms. For many school owners, this was something they had looked forward to for years but could not accomplish without an able knowledge partner. A few of them stepped forward to help us in our efforts to reach the large mass of schools. They came to speak at our seminars, giving stirring testimonials about the changes that happened at their schools. They graciously offered to host other schools that were interested in our program, so they could see XSEED actually implemented in their classrooms. They also went out of their way to allay others’ concerns about successfully implementing the program. For a prospect school, nothing could be more reassuring than to hear from a fellow school that our program had made a difference. This word of mouth pushed us along.

As of April 2010, over 400 schools have adopted the XSEED program; together they enroll over 120,000 children. This number grows weekly, primarily in the smallest towns of India. We recently launched an Adopt-a-School program that enables corporations to invest in schools serving the poorest children. One of our most fortunate partnerships is with the Royal Government of Bhutan, which has realized the importance of education in transitioning from a traditional monarchy to a modern democracy. XSEED is being successfully implemented in several government schools in that country. It has also reached select schools in Singapore and the United Arab Emirates (See Figures 6 and 7.)

IMPLEMENTATION AND IMPACT: XSEED MAKES A DIFFERENCE IN THE CLASSROOM

Getting teachers to accept our teaching methodology and adopt it in their classrooms was our next big hurdle. We encountered many problems in the beginning. A teacher in Hari Shree Vidyalayam, an early adopter in the state of Chennai, candidly noted:

The teachers took some time to understand the entire mechanism of the program. With a whole set of teacher manuals, student workbooks, content books, and resource materials and assessment techniques, the teach-

ers felt it was information explosion. Becoming familiar with the material was definitely a challenge. There were plenty of doubts such as, “Should we strictly adhere to the manual?” “Should we complete all the workbook exercises?” “Can we club a few lesson plans since we are short of time?” “Why aren’t we able to complete a 40-minute lesson in the stipulated time?” “Assessment reporting is repetitive work. Can we simplify the process?”

Two things helped teachers overcome these obstacles: training and ongoing coaching, and the role the instructional leaders played in the schools, essentially holding teachers’ hands on a daily basis. The same teachers who had earlier struggled with the “information explosion” began to settle down with the support they received from their instructional leader and coaches.

Within six months of implementing the program, we started getting feedback on the impact it was having on children. Many of the letters and emails we got had a common thread: XSEED had gotten children to understand what they were learning, to experience it through real-world situations, and to express it their own words. We visited classrooms and found a refreshing change in the way teachers were teaching and children were learning. It was very different from the traditional methods used in most classrooms. Students were more engaged, teachers attended to individual children, and there were group activities and experiments that enabled children to connect the concepts they were learning to real life.

Encouraged by the qualitative change we saw in classroom practices, we wanted to explore whether XSEED children in fact performed better academically than their peers in other schools. We set up a pilot study using a randomized experiment design, with the experimental and control groups matched on certain parameters. The experimental group was exposed to the XSEED program, while the control group was not.

We selected ten schools where the XSEED Curriculum Program had been implemented, and selected nine similar schools in the same regions for the control group. One section of grades 3, 4, and 5 was selected from each school, and each student was administered a test in English, mathematics, and science, according to their grade level. The tests assessed students’ understanding of key concepts and skills in these subject areas. They included only multiple-choice items, so as to maintain test objectivity and standardized test grading and analysis. All the tests were conducted by independent evaluators trained for the purpose.

The findings from this pilot study are encouraging:

- In a positive and strong trend, students in XSEED schools consistently show better performance than those in the non-XSEED schools. On average, across all subject areas and grades, XSEED students score higher than non-XSEED students.
- XSEED students show better performance in application and reasoning-related tasks, as compared to non-XSEED students.
- There are more “achievers” in the XSEED group; that is, a higher percentage of

A Million Children Now!

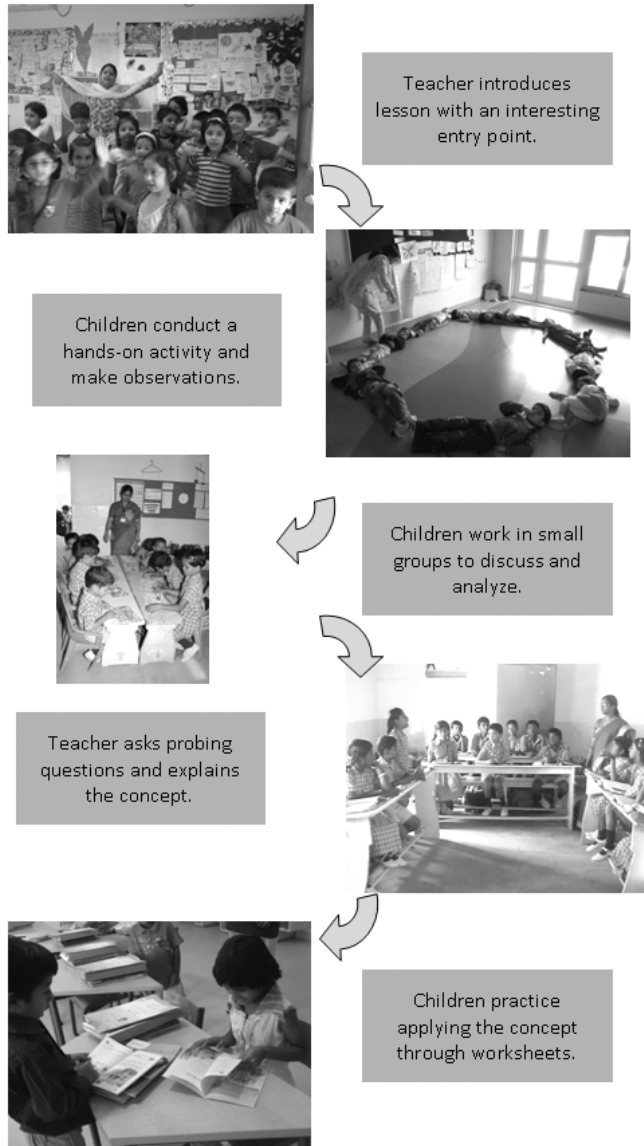


Figure 8. The XSEED classroom.

XSEED students got scores in the upper ranges than non-XSEED students. For example, in math, 34 percent of the students in XSEED schools were classified in the 61-100 percent range, compared to 18 percent of students from non-XSEED schools.

- The improvement in student learning seems to be attributable to improved teaching practices in the XSEED schools. Classroom observers reported considerably higher percentages of teachers demonstrating good listening skills, giving children opportunities to discuss their ideas, and using positive language for feedback

Our results and interactions with instructional leaders, teachers, students, and parents indicate that the outcomes of the XSEED program are in the direction we anticipated. It is encouraging to see statistically significant results in such a short period. However, we need to make sure that these changes are sustained and built on by providing teachers continued support to improve their practice.

OUR LEARNING AND IMPLICATIONS FOR THE EDUCATION DOMAIN

As this article goes to print, we are regrouping for our annual planning meeting to chart the future course of iDiscoveri. As I look back on our journey over the last decade, I can see that the first two stages of our journey are almost over and a third one is about to begin. In the first four years we created a boutique education services company that experimented with different approaches to improving school education, most notably through teacher training. In the next four years, we discovered a solution that consisted of detailed classroom support to supplement training that worked in the classroom and a scaled enterprise that could reach many mainstream schools. In these periods of experimentation and discovery, we have learned several lessons that can help us better implement educational change.

- *Staying true to a simple yet powerful vision—to better educate a million children—was the force that compelled our work to move forward.* The fact that we were able to get the entire team to believe in this vision created a huge reservoir of energy to overcome many obstacles along the way. Ashish made this simple articulation the center of all internal communication. We constantly reinforced our belief in this goal by experiencing and sharing the impact of actual differences we were making. When I asked our customer schools why they finally decided to work with us, they would invariably reply, “The conviction in your people that this would work in my school infected me.”
- *Listening to our customers and being flexible to reconsider our beliefs in light of their feedback steered us in the right direction.* We met hundreds of teachers and sat in their classrooms. It was not always easy to digest their feedback about the problems they were having implementing our programs. Many of their views, like the fact that training alone did not work, were contrary to what so-called experts believed at the time. Yet some of our biggest breakthroughs came when we truly understood our users and incorporated these changes into our product: ready-made worksheets for children, content books for home support, and the quarterly learnometer test.
- *Attending to detail and specificity enabled us to bridge the world of theory and practice.* When searching for solutions we did not just stop at asking “what is the solution?” but pushed ourselves to address how exactly to make it work inside the classroom. Teachers needed very specific answers to questions like these: What topics and sub-topics do I teach and for how long? How exactly do I begin and end my class? How do I know that children have actually learned a concept? The engineering of XSEED addressed these questions at a sufficient degree of detail so that even a beginner could teach using the toolkit. Single-mindedly attending to what children and teachers actually need helped bridge

the disciplines of curriculum, training and assessment—whose practitioners often work in isolation in the outside world.

- *Constantly demonstrating through our own example how to make something work was the best way to change the mindsets of others.* The resistance to change what has been practiced over decades in schools is sometimes extreme. Our new ideas were often ahead of their time and were dismissed quickly. At first, it was difficult for our own team to believe that we could actually deconstruct eight years of primary school curricula into a minute-by-minute teaching process. When Ashish himself got into the classroom and worked alongside everyone on the design table, then we felt we could get it done. Teachers challenged our notion that a syllabus can be completed in time even when children are learning through experience and reflection, not chalk and talk. What dispelled their fears were the demonstration videos of teachers teaching the XSEED way to a real 45-minute class.

Very often we find that policymakers are caught in debates about quality versus scale and social impact versus economic profit. The impact and spread of XSEED is evidence that these are not separate issues, but rather that they complement each other. For us, and for the entire developing world, this is good news:

- *Good quality school education can be made available at scale.* The choices we made to improve the quality of learning, such as standardized learning objectives, detailed curriculum design, and tangible assessment, ended up enabling us to implement at scale in hundreds of different kinds of schools. The measures we established to sustain the scale of our work, such as the compact practice-based teacher training and on-site instructional leader program, actually improved the quality of our delivery.
- *Good work (social impact) and good rewards (economic value) can go together.* Social entrepreneurship is perhaps the best vehicle for making a scaled impact in education. Having an educational product that schools need and are willing to pay for not only makes good economic sense—it is essential if quality education to spread everywhere. We have been able to create a business model in which parents and schools pay an affordable price for quality improvement and the revenues are channeled to create a thriving social enterprise.

As Margaret Mead once said: “Never underestimate the power of a small group of committed people to change the world. In fact, it is the only thing that ever has.”