OVERCOMING BARRIERS TO LEARNING – THE PARIKRMA WAY©

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Abstract

This paper presents the work undertaken by the Parikrma Humanity Foundation, a non-profit organisation working in the slum areas of the Indian city of Bangalore since 2003. The organization's unique model, the Parikrma Way©, for overcoming the learning barriers faced by the children from these slums, is discussed. Key features of the Parikrma Way©, such as the 360° model with its 4 key pillars of Education, Nutrition, Health Care and Family Welfare, and the End to End (E to E) model, are detailed. Evidence of the impact that Parikrma has had on the learning achievement and quality of life of these children and their families is presented, followed by a discussion on the way forward for the model itself, and possibilities for scaling it up and replicating it within and outside the Indian context.

Keywords: Parikrma Way©, Barriers to learning, 360º model, End to End model

1 INTRODUCTION

Parikrma's approach is encapsulated in the organization's stated mission to `unleash the potential of under-served children by providing them with <u>equal opportunities</u> and making them valuable, <u>contributing</u> members of our society'. The underlining of words in this vision statement is deliberate. The organization is guided by a conviction that all children deserve the same opportunities, irrespective of their background. As Jalongo et al. [1] argue, `policy created for the preschool population should not separate the needs of the "poor" or the "disabled" or the "different" from those of children presumed "normal." Rather, nations should set one excellent standard for meeting the physical, emotional, social, and cognitive needs of all children within their societies. Through that one excellent standard, the needs of all children—and some needs may be far greater than others—can be equitably met.'

At Parikrma, compromising the quality of education or any other facet of the intervention, because `children from the poorest socioeconomic backgrounds are unlikely to need or appreciate the best' is never considered. Further, although the main focus of Parikrma is the running of its four K-12 schools, the objective has never been just about schooling. It goes well beyond that, with the focus on creating well-adjusted personalities, who are not only educated and possess the skills needed to build productive careers, but also possess a sense of responsibility to society and recognize the need to give back. Thus Parikrma's approach has always emphasised all-round development and inclusiveness. In fact, `Parikrma' is a Sanskrit word, meaning to come full circle.

It is this philosophy of the Parikrma Way©, from which its key feature, the 360° model, flows. The sections below describe all aspects of the 360° model and its impact on the children in the schools, and their families and communities. This is followed by a description of another key element of the Parikrma Way©, which is the E to E model. This model recognizes that Parikrma children need nurture and hand-holding even after they graduate from the schools, given the ever present danger of regressing into the anti-social behavior that looms all around them in their homes and communities. If they are to break out of the cycle of deprivation they are born into, a long term approach that recognizes and addresses their insecurities and concerns as they enter college and impending adulthood, and provides them with reassurance that they have what it takes to become successful and productive members of main stream society, is crucial.

BOX 1: An overview of Parikrma Humanity Foundation

An NGO, founded in 2003, running 4 K-12 schools in Bangalore. Offers completely free education to 1700+ students from across 72 slums and 4 orphanages in the city. 120 students taken in annually into Kindergarten. Children identified as being from the most deprived backgrounds admitted, with no other admission criteria. Focus on English language education. 400+ alumni studying and working at productive careers. Runs purely on individual and corporate funds. Annual cost per child – 550\$

2 PARIKRMA'S 360° MODEL

The need for integrated Early Child Care and Education (ECCE) programs for under-served children, to influence their long-term intellectual and social development, is widely accepted and implemented in different forms across the world. The UNESCO definition of quality ECCE[2] includes `... various aspects such as the tone and content of teacher–child interactions, the range of play materials available, the safety and atmosphere of the physical space, the attention paid to health and nutrition, the child-centered approaches to learning, and the level of parental engagement. In addition to the learning environment itself, policies and regulations related to child-adult ratios, class or group size, teacher qualifications and training, inclusive education...'. Similarly, quoting again from Jalongo, et al., quality ECCE programs must (1) have sound philosophies and goals; (2) provide high-quality educational environments; (3) reflect developmentally appropriate and effective curriculum and pedagogy; (4) attend to children's needs, both basic and special; (5) respect families and communities; (6) employ professional teachers and staff, and (7) implement rigorous program evaluation practices'.

The Parikrma 360° model encompasses all these and more within its 4 pillars of Academics, Nutrition, Health Care and Family Welfare.

2.1 Academics

The World Bank's 2018 Development Report[3], titled `Learning to Realize Education's Promise', rather disappointingly talks about the possibility of offering an easier curriculum for children coming from the lowest end of the socioeconomic scale, which is anathema to the Parikrma philosophy. Decisions on all aspects of education have always been based on making the best available to Parikrma students, while setting them high standards. Key aspects of Parikrma's educational system are discussed below:

2.1.1 Curriculum

An early decision had to be made on the curriculum to be followed by the schools. There are three basic curricula offered by Indian schools, which are approved by the Indian Government. The easiest of these is the one followed by all government funded schools, which is available with minor variations across Indian states. This curriculum was eschewed as being of unacceptably low standard; instead, the school follows the one offered by the Central Board of Secondary Education (C.B.S.E), a curriculum offered by the majority of mainstream private schools in the country.

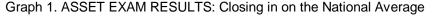
Another early decision was to teach the curriculum entirely in English to give students felicity with the language from an early age. India is a country where most business, especially in the organized sector, is conducted in English. Political considerations, on the other hand, have seen successive Governments remove English from elementary school curricula, focusing instead on the regional language. While there is obviously a need for Indian students to learn the regional languages, this decision ignores the realities of working in India, and disadvantages government school students who struggle to speak and write English in later life. Ease with English gives the speaker social status as well as advantages in the Indian workplace, especially at those multi-national organizations where youth aspire to work. Giving this edge to Parikrma students has helped them greatly over the years, in all aspects of their lives.

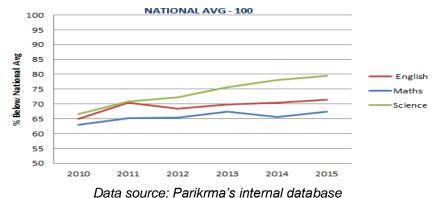
Parikrma teachers, who undergo rigorous training through an in-house teacher training academy, are, however, urged to go beyond the confines of the curriculum. There is plenty of research[4][5] describing how the cognitive deprivation experienced by children in homes of the kind that Parikrma students come from, may be overcome by persistent and high quality exposure of the right kind. Thus, there is an on-going attempt to battle students' lack of informal home and family based learning environments. For instance, volunteers at Parikrma, many of them highly educated and skilled in a variety of spheres, are encouraged to interact with the students and give them the benefit of their knowledge. There are multiple after-school clubs for science, mathematics and reading on offer for children who show promise in these areas. Parikrma is a member of the UNESCO affiliated `The Globe Reads' initiative, where children across countries read the same book and then discuss it via video-conferencing facilities. Every class at Parikrma goes for at least 2 field trips in a year, to locations that relate to the class's topics of study during the year, across STEM subjects, the social sciences and languages.



BOX 2: *The typical family entering Parikrma..* Mother: Domestic maid; illiterate Father: Daily laborer, primary schooling and alcoholic Monthly HH Income: < \$125/ month Home: Illegal shanty of about 50sq ft, within a slum Parikrma's belief in aiming for excellence had the organization register its students for the ASSET, a diagnostic test offered by a private educational organization in India called Educational Initiatives. This test evaluates conceptual learning rather than rote memorization, and targets students from the best schools in India. It is not a test that government run schools or schools catering to the same demographic as Parikrma would ever offer their students. Driven by the conviction that its students must benchmark themselves against the best, regardless of where they stand, Parikrma has participated in the ASSET exam for 6 years between 2010 and 2015. Although this has been discontinued because of the high cost of registering for the exam, the results of these 6 years are presented here and tell a compelling story.

The graph below shows clearly that Parikrma students are below the national average, when that average is based on students coming from advantaged homes studying at the best private schools in the country. While that is no surprise in itself, the findings also show Parikrma students steadily making their way towards the national average. This is especially true in science where special funding in 2013, for the specific purpose of improving Parikrma's science education enabled the schools to hire high quality science teachers. The results were immediately evident and go to show that with the right inputs, there is no reason why Parikrma students cannot meet the educational standards of students coming from more advantaged backgrounds. An upgrading of Maths and English teaching is certainly likely to result in a similar upswing.





2.1.2 Remedial Education and Counselling

As the 2018 World Bank report [3] points out, 'Remedial prevention programs can help at-risk youth who are in the formal education system to prepare for rigorous academic work in further education or training'. With the environment of extreme deprivation in the households that many of the students attending Parikrma come from, it is not surprising that 15-20% of the children in every class are unable to keep up with their peers and need extra attention to help them catch up. Recognizing this and in keeping with the principle of maximizing the potential of every single child in its schools, Parikrma has always had a remedial education program in place. This is an in-house program, staffed by teachers and volunteers who understand the children's educational context. In order to avoid children in the remedial program from being stigmatized, all attempts are made to keep children of a class together as much as possible, though this can be a challenge, given that it is typically the children needing remedial classes who are also the most disruptive.

Table 1. The Impact of the Remediation classes

Data source: Parikrma's internal database

As the table shows, a significant percentage of the students needing remedial help at the beginning of the school year, manage to catch up

	Junior School		Middle School		High School	
Years	No. who started year needing Remedial	No.(%) caught up/ sent back to regular class	No. who started year needing Remedial	No.(%) caught up/ sent back to regular class	No. who started year needing Remedial	No.(%) caught up/ sent back to regular class
2015	41	11 (27%)	60	19 <mark>(32%)</mark>	52	15 (29%)
2016	69	18 (<u>26%</u>)	52	28 (54%)	40	12 (30%)
2017	77	21 (27%)	45	18 (40%)	38	11 (29%)

and return to their own classes. Over the years, the number who have regressed and needed to be returned to remedial classes has fortunately been small. Another positive trend is that the numbers of children needing remediation in middle and senior classes is reducing steadily, indicating stronger foundations in junior school. However, Parikrma is now compelled to take in students directly into Grade 1 through the Government of India's Right to Education Act (RTE); given most of these students have not had any preparation for school, viz. Kindergarten, the numbers requiring extra academic assistance in the lower grades are on the rise (*See Box 3*).

In order to help students cope with their home environments, Parikrma has psychologists and counsellors on call who are available to all students. In addition, a great deal of emphasis is placed on life skills. Circle time, for instance is one such mechanism where students in each class sit in a circle with their class teachers, once a week and have the freedom to raise and discuss any topic they feel like. This allows students to reach out to and to bond with their peers and teachers, bringing a sense of sharing and unity within them and helping resolve any problems or issues within the group.

2.1.3 Extra-curriculars at Parikrma

Extra-curricular activities play an invaluable role at Parikrma, strengthening and complementing the academic interventions. Sports, art, music and theatre are all routes to building confidence and self-esteem among Parikrma students, most of whom still find academics a struggle. The benefits, such as time management or self-discipline, of seriously pursuing an activity other than academics, also accrue without being explicitly taught, impact their academic performance positively and are especially critical for students who do not have role models at home. Parikrma's state and national level accolades in the fields of sports and painting are also a source of great pride among the students, with each batch trying to outdo the accomplishments of earlier batches. Thus, all these activities are taken seriously in the schools and have actually led to many students pursuing them professionally. For instance, three Parikrma athletes have gone on to play professional football. At least a dozen students, who discovered strong aesthetic talents, have opted for college level programs in design, fine arts, animation etc. This is especially significant in the Indian context, where even families from educated middle class backgrounds urge their children to go in only for traditional career choices in professions such as engineering, medicine or accounting.

2.1.4 Constant Innovation

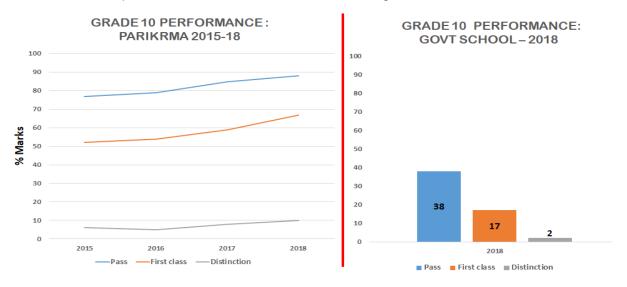
The best ECCE programs are those that are constantly innovating, trying to identify newer and more effective methods of reaching out to children. Parikrma is always seeking new methods for improving the educational process among students, especially those based on proven principles of human learning and behaviour. Two recent innovations within the schools have been:

- a) The Buddy system: In an attempt to reach out to younger students in primary school, Parikrma has begun an experiment in the last 6 months, where senior students in Grades 9 and 10 have been teaching their juniors concepts in mathematics and science. Since these subjects are found to be the hardest by Parikrma students, this experiment was started in the hope that senior students would be able to communicate these concepts in the way they themselves had understood them, and that this would work better in getting through to younger students. While there has been no formal validation of this approach, anecdotal evidence suggests that the method is working well, with some of the primary school students showing a significant improvement in their grades in these subjects. The Buddy system has also had a positive ruboff on the mentors, who have started feeling responsible for their young charges and take pride in their learning achievement.
- b) The Friendship Bench: Another novel experiment has been the labelling of a bench in the common area of each school as a `Friendship Bench'. Any child feeling low or depressed just needs to sit on the bench to signal to others that he or she is looking to talk to someone. Anyone, whether a teacher or a fellow student, can reach out to the student on the bench and attempt to help him or her; or at least convince the child that s(he) is not alone. The Friendship Bench has been successful in helping those Parikrma students depressed by their home environments, struggling with school and academic pressures etc.

BOX 3: Right of Children to Free and Compulsory Education Act, 2009

Government legislation detailing the rights of children of ages 6-14 to free and compulsory elementary education in all Government and Government aided schools. Private schools shall admit at least 25% of economically disadvantaged children in their schools without any fee. Standards have been set for minimum level of infrastructure requirements and teacher-pupil ratio.

To sum up, the emphasis of academics at Parikrma has always been on students enjoying the learning process. Barring serious illness, students hate to miss school; drop-out rates are less than 2%, compared to the government school drop-rates of 26-27%[6], by the time students reach high school. As a result, academic achievement at Parikrma has shown consistent improvement over the years, as Graph 2 shows. The difference in performance levels between Parikrma and a comparable government run school located in similar neighbourhoods is striking.



Graph 2. Validation of the Parikrma model through academic measures

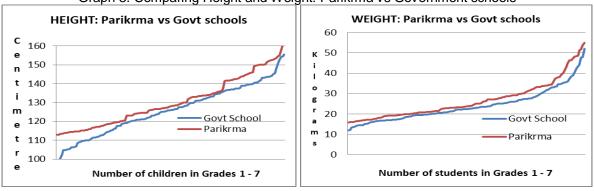
Data source: Parikrma's internal database

2.2 Nutrition and Healthcare

The role of nutrition has changed in Parikrma. When the schools started, the midday lunch was a means of luring children to come to school and keep them there. Initially, they were so malnourished and starved that there would be fights leading up to the food buckets. They were also afflicted by lice, rickets, and skin and stomach infections. Over time, as they continued to eat well, the children calmed down, began to develop physically and mentally and fell sick less often. Along the way, they and their parents started to realize that there were reasons beyond the food to attend school.

Today, Parikrma provides between 70-80% of a child's nutritional needs at school since there is no certainty that food is available in their homes. Children get breakfast as soon as they come to school. There is lunch at mid-day followed by a nutritious malt drink served before they leave school in the evening. Those playing in sports teams are given supplements whenever possible.

Parikrma ensures a general health check-up along with eye and dental check-ups at the beginning of each school year. Students identified as needing extra care such as spectacles or dental work are sent to hospitals Parikrma is affiliated with, where these facilities are provided at discounted rates. In addition, emergency care and hospitalization for serious illness is provided to the extent possible, with the help of donors. The table below shows the superior physical development of Parikrma students, when compared to children from the same neighbourhoods, but attending government run schools.



Graph 3. Comparing Height and Weight: Parikrma vs Government schools

Data source: Parikrma's internal database

2.3 Family and community welfare

This is the one pillar of the 360° model that distinguishes the Parikrma Way©. When most ECCE programs talk about including parents, they confine themselves to including the parents in their children's educational journey. Thus, they are encouraged to attend parent-teacher meetings, show an interest in what is taught in school every day, accompany children on class trips and so on. Indeed, all these measures have been shown to have a positive impact on children's learning achievement.

At Parikrma, however, including the parents means much more than just having them involved with their children's education. After the early years of Parikrma's existence, it was obvious that if the interventions at school were to have a sustained impact, the environment at home would need to be upgraded as well. In keeping with Parikrma's overarching theme of inclusiveness, it was important that the children continue to live at home with their families, with parents and siblings being included in the interventions. While there have been successful programs of under-served children being removed from their homes and placed in high quality educational environments, the participants in these programs are usually caught in a conflict between their home and school milieus. High costs leading to poor sustainability can also be issues with such programs[7].

At Parikrma, since the objective is for students to act as *change-makers* within their environments, rather than being alienated from them, the focus is on improving and stabilizing those environments. The CDS (Community Development Services) team, whose initial job was only to go into the slums and identify those children who seemed to need the Parikrma intervention, soon realized that if the schools were to have a sustained impact, there was a critical need to work with the parents, especially the mothers. Initial programs were simple, starting off as awareness programs, aimed at empowering mothers. Then, mothers themselves, many at the urging of their daughters studying at Parikrma, demanded more. Thus, as Table 3 shows, the family welfare program has grown to include a range of workshops, counselling and skilling programs aimed both at Parikrma parents and their larger slum communities. Parents are rewarded for active participation in these interventions.

General Workshops	Skilling Workshops	Entrepreneur Self Help groups	Health Check- ups	Deaddiction counselling & admissions	Counselling – Other issues
 Spoken English: 5 Computer Basics: 5 Nutrition: 8 Menstrual Hygiene:4 Financial Literacy: 5 900+ bank accounts opened by parents 	- Tailoring: 5 - Beauty: 5 - Catering: 2 - House keeping: 3	11 Self-help groups each with about \$11,000. Loans up to \$500 permitted per mother, typically for business start-ups or occasionally for emergencies	- Eye check-up: 2 - Cervical Cancer screening: 8 - Breast Cancer screening: 8	25 alcoholic fathers sent for rehabilitation.	- Abuse and violence related issues: 25 - Single parent issues: 76

Table 2. A year in the Parikrma CDS team's calendar

Data source: Parikrma's internal database

Table 3 and Graph 4 on Page 7 depict the positive relationship between participation in Parikrma's out-reach activities and the improvement in a family's overall income and stability. This, in turn, impacts the children; those coming from homes with more active participation in the family welfare programs, fare better at school, both in terms of academic performance and overall development.

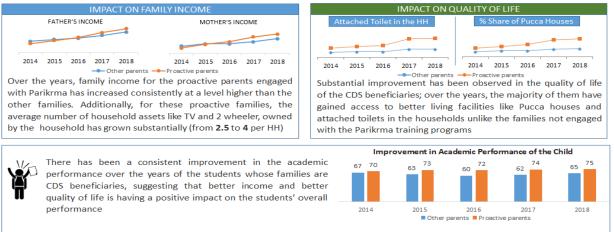
BOX 4: Other kinds of impact - smaller, less tangible but no less significant

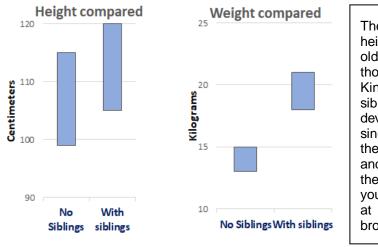
Rising parental expectations: Parikrma parents are more ambitious for their children with 60%+ wanting them to become doctors/engineers, compared to <40% of their neighbors[8].

Aware parents: Over the last 5 years, 36 parents have taken a stand in their communities on issues such as child marriage, abuse and girls being forced to drop out of school.

Change Makers: 6 students from Parikrma Grade 12 participated in a city-wide challenge, titled 'Change Makers', where high school students were asked to design and implement projects for social change. The Parikrma project of teaching life-skills, Math and English to children from families of migrant laborers, post their own school hours, was rated in the top 3 amongst 40 such projects and won a cash prize; the students promptly donated this money to Parikrma.

Table 3. Impact of the CDS team on families and students of Parikrma





Graph 4. Impact of having an older sibling in Parikrma, on their younger siblings

The chart on the left compares the height and weight of those with an older sibling in Parikrma against those without, just after entering Kindergarten. Those with older siblings in Parikrma are already better developed, being taller and heavier. since their parents, with exposure to the CDS activities are more aware and better off financially than when they first entered Parikrma; thus, younger siblings start their schooling at a better place than their older brothers or sisters.

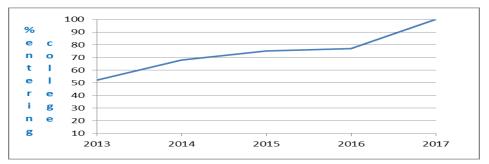
Data source: Parikrma's internal database

3 THE END TO END (E TO E) MODEL

Parikrma follows an end-to-end model, wherein children enter kindergarten at age five and are nurtured beyond their time in high school, until they finish college and start work. Soon after the early batches of students started graduating from 2010 onwards, there was a realization that Parikrma students needed support, both financial and emotional, even after leaving the school.

During the initial years, when parents had to be coaxed into sending their children to college after Grade 12, rather than sending them into the workforce or marriage (in the case of girl students), Parikrma committed to parents that the institution would pay a significant proportion of their children's college fees. Over the years, however, as Parikrma has moved closer towards the ideal of all its students going on to college, the financial burden on the institution has become untenable. Parikrma continues to help to the greatest extent possible, but parents are being urged to avail of educational loans being given by the Government of India which require minimal documentation and no collateral.

Graph 5. Moving onto College



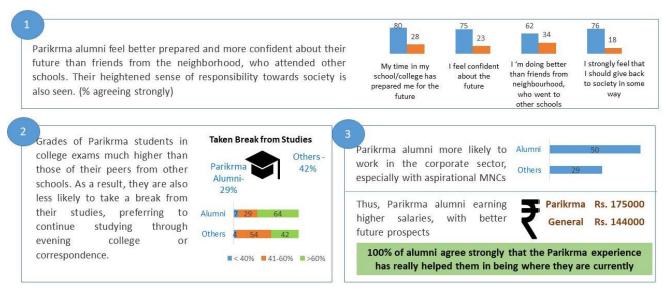
Data source: Parikrma's internal database

Besides financial support, it was seen that students also needed counselling both before and beyond their graduation from Parikrma. After 13 years within the intimate and nurturing environment of the school, students were clearly apprehensive about venturing into the outside world. Early graduates were under-performing, not because of being unprepared in terms of skills or academic learning, but because they were over-whelmed by their new environments, and the realities of interacting with those coming from backgrounds so different from their own.

Thus, a counselling program was put in place last year, addressing these issues even during Grade 11, helping students deal with insecurities ranging from coping with college academics to managing social interactions with classmates who come from more affluent homes and schools. In addition, Parikrma is entering into carefully regulated mentorship programs, where volunteers provide one on one mentoring for soon to be graduates, helping them with advice on a range of soft skills – table manners, grooming, interview-taking skills and so on.

Parikrma Alumni have organized themselves too, providing each other and their juniors with support and advice on how to cope with the world outside. This network is a strong one, with alumni attending and helping out at all school events, providing current students with academic support and even making small contributions to Parikrma from their salaries. Alumni represent the ultimate validation of the Parikrma model. The table below shows their journey after high school graduation in comparison with their peers from within the same neighborhoods that they come from.

Table 4. Where the Alumni stand vs their Peers



Data source: Telephone and Face to face surveys done by Hansa Research among 110 Parikrma alumni & 120 of their peers from the same neighbourhoods, but educated at other schools (2018)

4 THE WAY FORWARD

In terms of developmental lifecycles, Parikrma is clearly in its `mature sustainability' phase.[9] This stage is defined by having well established and recognized core programs, a professional and diverse staff in place, and stable and diverse funding sources. The next step is to evaluate and identify strategic opportunities that provide the organization with long term sustainability through new and scalable delivery models.

For Parikrma, its teacher training wing, the Education Transformation Centre (ETC) is the vehicle to accomplish this dream of abiding and large scale impact. Parikrma set up the ETC in response to a request from the Karnataka State Government's Ministry of Education, to partner with it in augmenting the quality of Government schools. This quality upgradation is being accomplished in 2 ways as shown in the diagram below.

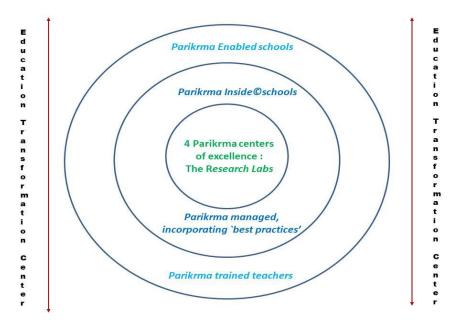


Diagram 1. Extending Parikrma's Sphere of Influence

The Parikrma Inside© schools, will continue to be Government funded, but managed by Parikrma and incorporating all the best practices of the Parikrma Way©. Teacher training and student evaluation will be done by the ETC; initial experiments with this model have shown positive results in the schools where it is being implemented.

The Parikrma Enabled schools will be one more layer away from the core but move towards the Parikrma model of bridging the gap in learning achievement among under-served children, by training all teachers and school heads within, in Parikrma methods. The 1200+ teachers from across 430 Government schools who have been trained by the ETC in this way, have already shown perceptible change in their teaching methods and their ability to reach out to their charges, prompting the Ministry to sign a formal MOU with Parikrma to train many more teachers in the schools that it runs.

This outward expansion of Parikrma's sphere of influence will systematically allow the validated systems and best practices of the organization to positively impact the education of hundreds of thousands of students, currently suffering the poor quality education provided by government run schools. As a logical corollary, plans for an online ETC have also started, that will overcome the constraints of ETC's physical infrastructure in the face of the ever growing demand, by using technology to expand reach, viz. a digital platform designed to run on mobiles and other hand held devices.

5 CONCLUSION

Fifteen years after its beginnings on the rooftop of a house in a Bangalore slum, Parikrma has proven that, with the right inputs, poverty and socio-economic barriers need not prevent children from learning or developing into productive and responsible adults. While this in itself is neither new nor untested, Parikrma's contribution has been to arrive at a structured approach that can be applied anywhere in the world, with a few minor modifications, given that none of the individual elements of this model are

unique to the Indian context. The model, in its essence, is a combination of inputs that cover every aspect of a child's development. Not emphasizing any single element over others, results not just in learning achievement, but also in the growth of a child into a well-adjusted and responsible adult. Parikrma's sustained growth over the last 15 years has also shown that the costs of implementing this model are not so excessive as to threaten its existence, which has been the case with some other models that have attempted similar levels of impact. Rather, Parikrma has shown that what is important in the upward trajectory of a child from an under-served background, are inputs that are sustained, both in duration and quality. The objective is to affect a fundamental and positive change in the quality of life of the child, and his or her family. If this change is to be permanent, the only answer is a holistic and long term intervention that is maintained for 15-20 years, without a reduction in its quality or intensity.

As the earlier section on Parikrma's `Way Forward' indicates, the organization is attempting to scale up the model by replicating it in somewhat modified forms across Karnataka state where it is located. Parikrma looks forward to individuals or organizations from other parts of the world attempting to replicate this model in their own environments, and is open to assisting and advising such efforts.

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