# **Final OAP Report**

One pager plus Prelude and footnotes

The EdK12 Team\*

## 1 Prelude and antecedents

With the intent of giving context to this project, as the team lead, I wish to give voice to the special antecedents of this project. After 25 years in tertiary education in Hong Kong, I was deeply disturbed by the quality of school education which appeared to be undermining the scope of university education. I came back to India at the age of 52 to effect change in K12 education in India. Over the last 14 years this has involved setting up two elite schools from scratch in Bangalore<sup>1</sup>, putting together a loose but talented team<sup>2</sup>, working with an NGO on an education project with 40 schools in Bangalore<sup>3</sup>; working with Plan<sup>4</sup> on child led social equity audits in rural areas in 3 states of India<sup>5</sup>; writing a grant proposal and helping to implement a DFID<sup>6</sup> funded HIV program for children in 5 states in India<sup>7</sup>; interviewing over a 100 children in Hue province in Vietnam<sup>8</sup>; conducting many evaluation interviews using our feedback systems, meeting with many potential investors, auditing several international schools across India<sup>9</sup>, and conducting a pilot of the efficacy of our methods <sup>10</sup> The learnings of these initiatives have been that:

- there is potential for creating change in social behavior through our schools
- this program has to be a business proposition for it to be sustainable
- we can make K12 education exciting, relevant, effective and cheaper through our methods.
- the low hanging fruit is grades 5 to 8 where the energy of adolescence can be harnessed into meaningful learning before the pointless<sup>11</sup> frenzy of Board examinations.
- the urgent need is for teaching only Mathematics, English and Systems Thinking as a first initiative. 12
- it is relatively easy to implement our system across the country, reduce education costs, improve behavioral outcomes and optimize future learning strategies, given the right partners.

The difficult part has been to advocate change in the system due to the inertia of vested interests, i.e. marketing failure. That is why I joined this course. The first gain is already evident through finding a peer with complementary skills Anubhav Khanduja.

# 2 The Perceived Need - is this a viable opportunity for a business

#### 2.1 The reform of education worldwide

Educational reform is controversial in any country. What is not controversial is that the countries that head the United Nations Human Development Index (HDI) i.e. Norway<sup>13</sup>, Australia, and The Netherlands<sup>14</sup> have a strong focus on education rather than strong leadership. By the same token countries that defocus education and democracy decorate the nether regions of the HDI. The HDI is not the only measure of social progress but compared to the Gini coefficient for instance, it is a more holistic indicator of progressive societies.

#### 2.2 The demand for education in India

Across the nation there is movement from free government schools to relatively expensive private schools.<sup>15</sup> The private sector spends about USD 20 billion on 7% of schools that cater to 40% of enrollments while Govt. spends less than USD 30 Billion on the remainder.<sup>16</sup> Absence of performance increments, the inability to scale, and the sensitivity of technology to electric supplies, are prime reasons why current interventions have failed or been constrained. Additionally, federal govt. programs have been stymied by state govts. abusing constitutional provisions.

- \*Team Lead: Samar Singh
- <sup>†</sup>Member: Anubhav Khanduja
- <sup>1</sup> Vidyashilp Academy and Trio World School
- <sup>2</sup> http://www.agem.in/team.html
- <sup>3</sup> http://www.janaagraha.org/content/program/bala-janaagraha
- 4 www.planindia.org
- <sup>5</sup> Report: IndReviewOfPFL.pdf
- 6 http://www.dfid.gov.uk/
- <sup>7</sup> http://manthanaward.org/section\_full\_story.asp?id=455
- $^8\,\mathrm{Cited}$  because education includes the rights of the child. Report titled VietnamEvalReport.pdf
  - <sup>9</sup> Consultant, University of Cambridge International Examinations (CIE)

- $^{10}$  Cited in Reports as FullReport.pdf
- <sup>11</sup> In learning terms
- $^{12}$  FullReport.pdf demonstrates enhancements in Science and English in School term examinations when only Maths was taught through our program isolated from the main curriculum.
  - <sup>13</sup> not an English speaking society
- <sup>14</sup> not an English speaking society
- 15 http://articles.timesofindia.indiatimes.com/2012-03-
- 30/bangalore/31260660\_1\_government-schools-govt-schools-private-schools
  - <sup>16</sup> http://slideshare.net/kittukolluri/investing-in-india-feb-2010

# 3 The response of the market

## 3.1 First phase

Most companies e.g. Educomp have focused on providing technology, teacher training and exam readiness to schools. There is little evidence of improved educational outcomes for students, particularly at the bottom of the educational pyramid. This opens the door for more effective solutions.

#### 3.2 Customer feedback

Our recent face to face interviews have used our feedback devices<sup>17</sup> during an hour long awareness session which also captures opinions and capacities of audiences.

Our findings are that schools are reticent to entertain changes in classroom practice which focuses on School Board Examinations, while children and parents have little say. We have based this evaluation on feedback from 25 grade 9 and 10 students<sup>18</sup>, 30 teachers, 1 Principal and 16 graduate students of journalism. It has been difficult to bring parents into these presentations as the presentation is primarily designed for school staff.

School teachers and principals invariably do not exhibit the skills needed for making competent decisions in complex circumstances, nor do they seem able to apply knowledge they have gathered to new circumstances. These qualities of inference and decision making are vital for a reformed education system as is the ability for participative decision making which dilutes under an environment that stresses competition so excessively.

Schools are increasingly providing opportunities for novel activities after classes. We have come to the conclusion that this represents a mechanism by which we can show impact in school classrooms, as we have been able to show with our Pilot. Such initiatives are funded by parents directly hence it is easier to get paid for such work as the only requirements from parents seems to be that such work should be confined to school hours as children are overloaded with homework at home and with other activities.

Our informal interviews have clarified for us that parents share our concerns about the adverse impact of an anachronistic education system, and support our approach. Teachers also share those concerns, but have little power to influence institutional decisions in India. Such decisions are driven by the current examination system which dictates what is taught and how it is taught, and, through the inertia of owners who benefit from an established system. Against that, there is an increasing awareness by parents and students that education needs fundamental reform. The movement of students from government schools to private schools is one indicator.<sup>19</sup>

### 4 The EdK12 solution

Our solution uses lower power drain technology, centralized generation of content, feedback, centralized analysis of response, professional presentation, and teacher facilitation of discussions about feedback representations to provide a solution that is scalable across thousands of schools, increasingly affordable with scale, measurable in real time, and effective in terms of achieving educational outcomes.

We believe there are no realistic competing mechanisms hence we would like to proceed with this initiative. We are confident we can deliver our outcomes if we get either funding or a large schools conglomerate to work with us. After all, our product in its scaled up service operations is priced at less than USD2 per student per month.

<sup>&</sup>lt;sup>17</sup> see video

 $<sup>^{18}</sup>$  Report: FeedbackOfDemos.pdf

<sup>&</sup>lt;sup>19</sup> http://articles.timesofindia.indiatimes.com/2012-03-