X36 Falcon Design

India Mass Education Project

X36 Falcon's "Curiosity" project is a part of the Vivekanand education megaproject

- ✓ Our social division is working to ignite curiosity in children through design

- ✓ Education is one of our largest initiatives. Please visit :

http://www.nataraja.org.in/education_megaproject.html

The Curiosity Project

What are the Major problems within India's school system ?

1. **Money is reaching our schools 6 -7 months late**
   - ❏ This delay in funds arrival in schools is lowering the productivity of 192 million students and 5.23 million teachers across India

2. **Very high dropout rates**
   - ❏ India currently has a shortage of **6,21,805** secondary schools
   - ❏ About **39 %** of children drop out of school after class V. Another **50 % +** drop out by class VIII.
   - ❏ In all upto **89 %** of children drop out of school before class IX as there are not enough secondary schools to go to

3. **Poor teacher quality**
   - ❏ 2007 NUEPA* data states that 46 % of India's teachers have not studied beyond class XII and 25 % have not studied beyond class X
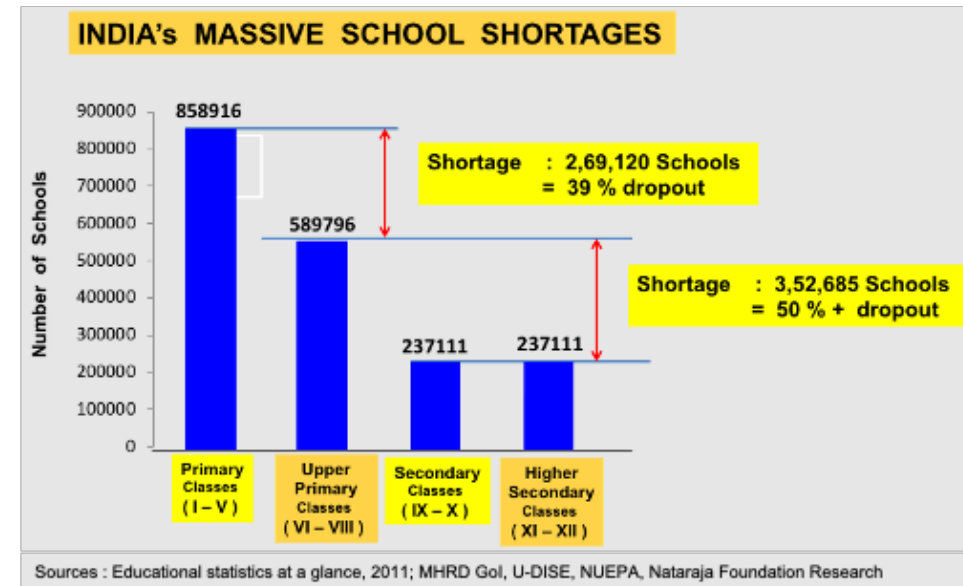
4. **Huge shortage of qualified teachers :**
   According to official estimates India has a huge shortage of qualified teachers :
   - ➤ Primary school (teacher shortage) : **9,07,585**
   - ➤ Secondary school (teacher shortage) : **1,06,905**

   These are official estimates. Actual shortages are much higher

5. **Low quality teachers , leading to women's safety issues**
   - ❏ Teacher shortages are leading to the recruitment of poorly qualified people. This is adversely affecting students moral standards
   - ❏ Neglect of teachers over the last 50 years is resulting in a rise in violent crimes against women in India

INDIA's MASSIVE SCHOOL SHORTAGES

- 858916
- Shortage : 2,69,120 Schools = 39 % dropout
- 589796
- Shortage : 3,52,685 Schools = 50 % + dropout
- 237111
- 237111

Number of Schools

Primary Classes (I–V) | Upper Primary Classes (VI – VIII) | Secondary Classes (IX – X) | Higher Secondary Classes (XI – XII)

Sources : Educational statistics at a glance, 2011; MHRD GoI, U-DISE, NUEPA, Nataraja Foundation Research

*. NUEPA 2007 by Arun C Mehta . The number of teachers then was 4.7 Million. Today in 2019 India has 5.23 Million teachers

6. **Very poor learning outcomes**
   - ❏ ASER report 2019 states that on a national basis 56 % of class VIII students cannot do basic maths and 27 % of students cannot read

7. **Lack of focus on secondary education & skills development**
   - ❏ Lack of focus has resulted in a huge shortage of **119** million skilled people across various industries

First we determined as to where Design interventions would be most effective within the school system

X36 Falcon's design team has identified <u>three major areas</u> that need immediate intervention so that learning outcomes could be improved :

1. Improving the financial efficiency within India's school system, so that money reaches schools faster

2. Improving teacher quality, to improve learning outcomes

3. Reducing school dropout rates, by creating additional secondary school capacity at low cost

We have therefore designed two project based solutions that address the issues in the above three areas. Both these solutions make extensive use of IT systems and 4G Telecom technology.

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Increasing Fund flow velocity to schools ... Current situation Vs. Proposed solution

Situation today (2018) ... Six to Seven month delays

1st April ' 2018

April – May ' 2018	June ' 2018	Sept ' 2018	Oct - Nov ' 2018	Nov ' 2018
Release of 1st instalments by Union Govt. and State Govt. to State implementation societies (SIS)	Funds release by SIS to District / Block / SMC. Often there is no clear instruction on what the funds are to be used for. School management committees (SMC's) are not consulted as to their real needs. District releases funds in June.	Release of 2nd instalment By GOI to SIS Confusion regarding funds utilization persists	2nd instalment of funds release by SIS to District / Block / SMC. Confusion regarding funds Utilization gets resolved by now	2nd instalment of funds release by District to Block and School management committees (SMCs). Schools spend the money.

Proposed solution 2019 and beyond ... The Six second solution

1st April ' 2019

Feb ' – Mar 2019	April – May ' 2019
1. Schools staff are trained and instructed to prepare their Budgets much before the start of the next financial year. 2. SMCs discuss the Budget with Block officer and get it approved 3. Approved budgets are uploaded to system and are signed off by entire state hierarchy before the start of the School year	Release of 1st instalments by Union Govt. and State Govt. to State implementation societies (SIS)

1. Funds are instantly transferred to the School Management Committees (SMC) Bank accounts by the SIS against Pre-approved budgets with clear instructions on end use.

2. Once funds are transferred the senior state level hierarchy is updated on funds transfer status ... with no further approval required.

3. Same procedure is followed for 2nd instalment of funds that is released in September.

Shortened Six second process , focuses its efforts on timely budgeting (before start of the financial year) and pre-approvals for critical items including teachers salaries
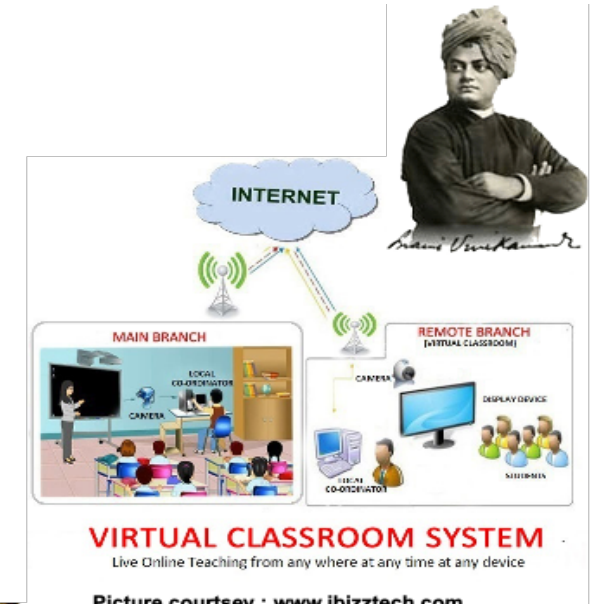
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" Vivekanand school in a cloud " programme

❑ Basic idea <u>borrowed directly</u> from Prof. Sugata Mitra's work on the self organized learning environment (SOLE) project

❑ Over **6,21,805** locations across 29 states & 7 union territories will be part of the Vivekanand " <u>School in a cloud</u> " by **2023**

❑ Pilot Project will run on <u>low unit cost</u> **4G / 5G** advanced data networks

Sugata Mitra's school in the cloud, Korakati, Sunderbans (West Bengal)

VIRTUAL CLASSROOM SYSTEM
Live Online Teaching from any where at any time at any device

Picture courtsey : www.ibizztech.com

❑ Project differs from the SOLE in that it will also include secondary education + skills instructors who will create and deliver a joint course and visit all locations

❑ There will be special attention on moral principles <u>including most importantly respect for Women</u>

❑ Leadership training / the creation of a <u>strategic culture</u> across India's population will also be an important area of focus within the programme.Teaching students history is critical to strategic leadership training

The Pilot Vivekananda " school in a cloud " will rapidly add secondary education and skills development capacity. Companies can contribute with their CSR programmes