PPP Models in school education: Learnings from 'ICT programs in schools'

PPP in Karnataka ICT in schools program

Many states in India have launched *ICTs programs in schools* and most of them have adopted the *BOOT*[1] model, in which private vendors implement the program by providing computer hardware, educational software, faculty for teaching teachers and students and providing program support. In return, the government makes periodic (monthly/quarterly) payments over the life of the BOOT period of usually 3-5 years. The BOOT model has been recommended by MHRD policy draft on "PPPs in school education" for running schools, quoting these ICT programs as an exemplar, wherein the government would pay the private party periodically based on number of students and the private party would be responsible for running the school. It will therefore be useful to study the experiences with BOOT models in ICT programs and draw lessons for the PPP policy draft. IT for Change studied two large scale 'ICTs in School Education' programs of Karnataka and Kerala to compare the BOOT model (Karnataka) and the 'integrated' model (Kerala) and this note discusses the learning from the study as an input to MHRD PPP draft note.

The integrated model followed in Kerala state's *IT@Schools* program, where the emphasis is on developing systemic in-house capabilities anchored around the role of school teachers, has shown good success. This has been in terms of much higher level of teacher engagement, integration of computer learning with regular learning processes, greater per-learner availability of computers, significant cost efficiencies and development of teacher networks and collaborative content creation processes, which support teacher professional development. All of these together have lead to the overall strengthening of the education system and better computer learning and computer aided learning.

The alternative model of 'outsourcing' or PPP (BOOT), employed by Karnataka's *Mahiti Sindhu* program, where private vendors were paid to run the program, does not show such significant outcomes. Funds were spent on vendor payments instead of building in-house capacities and hence the system itself did not benefit from the funding, and is largely unable to meaningfully sustain the program beyond the BOOT period. The experiences of the Mahiti Sindhu program provide insights on *demerits inherent* in BOOT/PPP models and specific implications for policy in the context of the MHRD PPP draft.

What to outsource

Decisions on outsourcing, need to distinguish between non-core processes such as procurement, installation and maintenance of hardware, and core activities with direct pedagogical implications like content and software, teacher training and learning processes. Similarly, while the MHRD PPP document discusses construction of school buildings and teaching-learning as two sets of activities to be outsourced as if they are along the same spectrum, these are by nature completely different kind of activities. School building construction is in many cases already being done / managed on commercial basis by private entities. However, teaching-learning process requires a set of competencies far removed from those in constructing school buildings and talking about both in the same vein is like conflating construction of police stations and policing, or building primary health centres and treating patients. **The notion of 'core competencies' well accepted even in business management theory and practice recommends that activities that are 'core' to the organisation should not be outsourced.** In the case of school education, outsourcing core activity of teaching can have negative consequences for the system as well as for the learning processes and outcomes. This point is increasingly being recognized by state governments[2], who now seek to distinguish between hardware procurement/ support, and educational content development and teaching-learning.

What gets lost when cost is saved

Using simple economic models in education can be dangerous, since costs are easy to measure, while quality is very difficult. Thus a strong focus on cost will lead to situations where vendors undercut their bids to very low levels to bag the contract or parties with low competencies offering lowest bids get selected. In the Mahiti Sindhu program (which is also seen in similar subsequent programs of the ICT@Schools), the vendors keenness to cut costs and maximize profits (after factoring in their low bids) was manifested in many ways:

1. Vendor faculty was paid usually between 3 – 5 thousand per month. This kind of salary attracts very poorly qualified people and results directly in poor quality of instruction. Vendor faculty are like 'para teachers' - poorly paid, contract employment based and poorly qualified.
2. Capacity building of vendor faculty is minimal or non-existent. The vendor faculty are invariably not given any training

1 Build Own Operate Transfer – this is a popular Public Private Partnership model, in which the private party builds the infrastructure, operates it for a period and then transfers to the public authorities

2 For instance Karnataka and Himachal Pradesh for their upcoming ICT in schools programs

beyond an initial orientation. In the current ICT@Schools program, which is on the GNU/Linux Free Software, vendor faculty were given one day training on GNU/Linux and expected to teach students in classes VIII-X.

3. Internet connectivity was not provided though part of contract, in many schools in Mahiti Sindhu program. Though the program was on Microsoft Windows platform, there was no upgrades of anti-virus software over the program period.
4. In the ICT@Schools program, vendors were able to get away with sub-optimal hardware configurations such as providing thin client solutions based on 512MB Ram or not providing sound cards in computers (which made the computers dysfunctional in the ICT@Schools phase I program)

Thus the process of competitive bidding typically leads to a ***race to the bottom*** with respect to both cost and quality and not the 'higher quality at lower cost' that the document assumes. This observation is also confirmed in other studies on schools or school systems based on competitive or market models[3]

How quality is compromised

The emphasis on 'cost effectiveness' leading to payment of low salaries and cutting corners on infrastructure, faculty training etc has led, by and large, to poor learning processes and outcomes in the Mahiti Sindhu (and ICT@Schools phase I) schools. One important component of computer aided learning is access to varied and relevant information sources through the Internet, however the Internet facility was not available for most parts of the programs in the schools. In one case, ICT@Schools, the vendor faculty was reported to be teaching only wordpad and notepad applications to students across classes VIII-X (over three years); these are trivial applications that can be learnt in a few days. This is because the vendor faculty was not comfortable to teach Office application or other educational software, and there was no process of monitoring by the system that could have remedied this lacunae.

Interactions with teachers and students in Kerala and Karnataka[4] usually provide a sharp contrast with respect to their engagement and learning of and through computers. In Kerala, teachers and students are able to clearly explain both basic computer literacy competencies and the applications of computers (and Internet) to their regular learning in other subjects, which is absent or much lesser, in the Karnataka schools we visited. In most cases, Karnataka teachers do not learn basic computer literacy and keep aloof from the program. In Kerala, the class X board examinations include the computer literacy subject which is based on the IT@Schools curriculum and passing this subject is essential to get the SSC certification. The results show that the students have performed very well in this subject. In Karnataka, the subject though part of class X syllabus is not part of the Class X board exams. Our visits to the Mahiti Sindhu and the ICT@Schools (phase I) suggests that students do not really cover the syllabus in the prescribed text book.

Systemic capacities for support and monitoring

The lack of investment in the capacity building of the DIET-BRC-CRC personnel who were expected to provide academic support to the schools, meant that they were unable to fulfill their role in monitoring the Mahiti Sindhu program. DIET faculty have shared how they have little idea of what is getting transacted under the program in schools and hence have limited capacity to report on the program meaningfully, or give feedback for ensuring quality or for program improvement.

Bypassing the key issue of public system reform

PPP often appears to be seen as a kind of silver bullet to solve deep seated problems and lacunae within public systems. However, PPPs do not really help in the reform of the public system, since this method essentially bypasses the issue of reform of the public system by handing over the task to the private party. The same 'weak/dysfunctional' public system which is not seen as being capable of oversight over government schools is being expected to effectively monitor and regulate private schools. However, where the private party has goals that are different from the public system (as in 'profit maximization' possibilities that inherently conflict with the 'equity' aims of public school system), regulation failure can be expected. School system comprises of a very large number of 'micro entities' and regulating the functioning at such a large scale is very difficult for the same public system and regulatory failure is quite likely. Outsourcing also seems to build more-or-less permanent dependencies of the public education system on private players, which can significantly distort the pedagogical structures in inimical ways. After five years of Mahiti Sindhu, the government was expected to continue the program. However this has not happened since there was no attempt during this period to build systemic capacities and hence schools and teachers are unwilling to own a program in which they had no role or learning.

There is really no alternative but to seriously attempt public sector reform, which require other steps to be taken. Some are hinted at by the document itself, when it is critical of the time-consuming bureaucratic processes and lack of autonomy to teachers and officials in the government system. A re-look at governmental processes to reduce red-tape without

3 See for instance, http://www.rethinkingschools.org/special_reports/voucher_report/v_free201.shtml which discusses Milwaukee's voucher schools

4 See section on scope of study for details

compromising accountability and enhancing autonomy of government officials are necessary and very doable steps[5]. The huge gap between the per capita student expenditure in government schools (around 5-8 thousand per student per year on an average) and of good private schools (like Rishi Valley which spends ten times that amount on core pedagogical processes) clearly indicates the severe underinvestment in government schools. Our teacher education institutions are mostly struggling with highly inadequate investments in both infrastructure as well as professional development fronts. At a macro level, our public expenditure on education has been much lower than even the accepted 6% of GDP. Increasing investment, including investing on greater transparency, autonomy and accountability structures and processes can significantly improve learning processes and outcomes. The Kerala IT@Schools program suggests that investing in the appropriate manner (teacher capacity building and autonomy) and to the required extent (much larger investments) in the public system provides significant rewards in terms of much higher quality of learning processes and outcomes and also in strengthening the public school system. There is no reason why a similar approach should not be considered in strengthening the secondary school system to deliver the required outcomes.

Study scope and methodology

The research covered interactions with head teachers, teachers and students (formal and informal through structured questionnaires, group discussions, observations) in 15 schools in 3 districts in Kerala. The team also had discussions with the IT@Schools program management team at state and district levels and with the SCERT team in charge of the curriculum design and development. In Karnataka, the study covered teachers in 45 schools (covering Mahiti Sindhu and ICT@Schools programs) across the state and also the team also extensively interacted with researchers who have previously carried out studies of the Mahiti Sindhu program. The study also included interactions with the DIET faculty who are responsible for monitoring the program and officials at the state DSERT. The research report is currently being finalized.

Conclusion

The Mahiti Sindhu program is a clear evidence of the dangers of adopting outsourced models in school education. The vendors (partly due to compulsions of economic models that force a race to the bottom) are not able to provide the required services. The basic goals of the program are severely compromised and **this failure is inherent in the choice of PPP as the model, since competition forces the cutting of costs, in the context of a common understanding that assessing quality of learning processes and outcomes is difficult, leading to a race to the bottom in terms of both costs and quality.**

While the ICT programs analysed in this note have adopted PPP for part of the schools work, the proposed MHRD note discusses PPP models for both handing over specific aspects of school work as well as entire schools. The education system has certain organic inter-linkages and strengths derived from these would be affected by PPP models that hand over the entire schools. On the other hand, Karnataka has designed a '***School nurturing***[6]**'** program, in which both business sector and civil society agencies are invited to support the strengthening of schools. However such 'nurturing' does not hand over control (and responsibility) for running the school to the non governmental sector. There are also umpteen instances where parents body/community support and involvement have strengthened schools. These kind of '***Public-Public-Partnerships***' which have a long and rich history and tradition in India and elsewhere, need to be studied and adopted on wider scale, since they strengthen the system and the achievement of its aims.

While the study has covered a small number of schools in Kerala and Karnataka and more extensive studies may be required to further investigate and validate its findings, it does alert us that outsourcing core responsibilities of the education system to the private sector can have negative consequences. The goal of the public education system to provide universal education of an equitable quality is an important part of national efforts for equity, social justice and economic development. Thus failures in education systems have much larger impact on the nation and society and any fundamental structural changes need to be carefully thought through before being proposed.

Gurumurthy K,
IT for Change

5 The second Administrative Reforms Commission's reports have detailed suggestions for systemic reform

6 http://www.schooleducation.kar.nic.in/SchoolNurturing.htm