Taking Stock of Toilets in Bangalore's Government Schools: Status, Challenges and Opportunities

Mohammed Kaleemur Rahman
Microsoft Research India
rahman.kaleem@gmail.com

Microsoft Research India Technical Report

MSR-TR-2013-77

Table of Contents

1. Executive Summary

Toilets play a key role in the overall functioning of a school. It is hard to imagine a school functioning efficiently without a set of toilets. According to UNICEF, "education for girls can be fostered by something as basic as a girls-only toilet" [1]. Even in cases where schools have toilets, they will be unusable unless they are clean, private and functional. Currently, there is an extensive database on elementary education in India called District Information System for Education (DISE). It has school 'report cards' of more than 1.3 million schools providing qualitative and quantitative information about them [2]. However, these only mention whether the school has toilets for boys and for girls. This can be misleading because even if a school has separate toilets for boys and girls, they could be unusable due to various reasons [3].

In an initial set of informal visits to 8 schools in the Shivajinagar, Frazer Town and KG Halli areas of Bangalore, we got the impression that toilets were an integral part of the school's infrastructure. In some cases, the poor condition of toilets affected attendance and enrollment at the school, especially for girls. One of the school headmasters (HM) complained that parents are reluctant in sending their daughters to school if there are no separate toilet facilities for them. The boys at the school would urinate in open-air at a corner of the school ground. This led us to perform a more detailed survey of school toilets in Bangalore, and understand the issues surrounding the provision of toilet facilities in government schools.

This work is a collaboration between the Akshara Foundation, Bangalore, and researchers at Microsoft Research India (MSRI), Bangalore. Akshara works closely with government schools in Bangalore, and had a set of field workers called Community Organizers (COs) whose help was invaluable in this work. At the time Akshara had 63 COs comprising of 7 project coordinators and 56 field coordinators. Each CO works within a set of areas and ensures that Akshara's educational programs are being implemented appropriately at the schools. A CO typically visits 3-4 schools in a day and performs duties such as bookkeeping, ensuring schools are using supplied educational resources, and making a note of any materials that schools require. COs work closely with the school headmaster and teachers, and maintain good relationships with them. However, they do not have much contact with parents of students. They accompanied us on almost all of our visits to the schools and helped facilitate conversations.

In order to get a deeper understanding of the toilet infrastructure in government schools, we carried out a survey of 36 schools in Bangalore. 16 of these schools were located in the urban Kaval Byrasandra cluster and 20 in the rural Sarjapura one. The goal of this investigation is to document the challenges and opportunities in providing usable toilet infrastructure in government schools in Bangalore. We found that:

- It is hard to get accurate state of school toilets due to inconsistencies and lack of toilet usability data in the DISE database
- There are significant differences in key attributes of urban and rural schools
- Poor toilets pose major problems and concerns for students, teachers and parents
- Many schools face water supply problems especially in urban areas
- Vandalism is a non-trivial problem that can have serious consequences for schools
- Schools with indifferent SDMCs do not get proactively improved
- Schools with buildings not owned by the government get limited support from it
- Urban parents in our sample were indifferent to their children's studies
- Enrollment in schools is affected by social, material and financial factors

- Community ownership is essential for schools to sustain their toilet infrastructure
- School toilet report cards have potential to incite stakeholders

These findings have been described in detail in this document, along with pictures when applicable. Due to the diverse context of each school, there are exceptions in our generalizations. We hope that this document will be useful to those working in the Government school space in Bangalore, specifically in the area of infrastructure and sanitation.

2. Prologue

Before delving into the study, it is important to provide context on how the project started. At the time, Akshara was looking to increase community engagement in government schools. They observed a gap in communication between schools and parents of students. Most parents belonged to the working class and worked for most of the day. There were no easily accessible avenues that allowed communication with the school e.g. if parents wanted to appreciate a teacher, or complain about a class. However, most parents owned a simple cellphone and mobile was one medium to reach them easily.

The proposed solution was to build an Interactive Voice Response (IVR) system that let people call a phone number, record a brief voice message for a specific school and listen to messages recorded by others. The COs would work with parents to help them call and record their messages, increasing community involvement. Schools could be appreciated for things they were doing right and prioritize issues that they need to improve. Additionally, schools could use the data collected by the IVR application to justify needs while fundraising.

While building the prototype, certain design constraints had to be observed. Some of the constraints included allowing the user to reach the school of interest, easily and intuitively, with the least number of steps. Design questions such as whether the user should browse through a list to find a school, or directly reaching a school by entering a unique code, had to be answered. The navigation design was challenging, as there was no unique identifier for the schools. Additionally, multiple schools could have similar names and be located in the same area. Keeping these constraints in mind, we built a prototype system and wanted to find out whether it was easy to use.

In order to understand the target users' aspirations and problems better and find out which design constraints were necessary, we decided to show the prototype to a small group of 5 COs and conduct semi-structured interviews with 4 parents and 8 schools. Although the COs responded to the prototype positively and perceived it as easy enough to use, we found evidence that indicated that it might not be scalable:

- Although a number of parents wanted their children to attend school, they were not involved in finding out how their children were doing. In most cases, parents were unaware of what subjects their children were learning. As a result they did not care about grades and did not have major complaints regarding the education at the schools.
- COs believed that parents would use the system initially but if no changes seemed to happen, they would discontinue its use. Although the IVR system was meant to foster positive change, the system creator would not be able to provide a guarantee and potentially get blamed by parents if problems were not acted upon. The dynamics of the school system and the potential for recording complaints

meant that the system would have to be designed carefully to navigate a sensitive space between parents and school officials.

- Many schools indicated that parents were not interested in their children's education. The schools repeatedly tried to convey the importance of education via parent-teacher meetings and personal efforts of some HMs. Often schools would lure them to meetings with material incentives.

The cost-benefit ratio of pushing the IVR system was too high and it would not be easy to scale. However, we found several instances of schools suffering due to the lack of sustainable infrastructure, specifically toilets. Each year, people donate money to causes unsure what effect their money is having. We felt it might be interesting to show change, or the lack of it, as a result of people's donations. Hence, donators would know how their money was used and encourage them to donate more. Schools would be held accountable for the money and be more likely to use it properly. Toilets seemed to be a modular enough problem to be tackled and we decided to understand this domain better. In order to compare toilets, we needed metrics and visuals to evoke emotions. Hence, we decided to create metrics for toilets, investigate a set of schools and document their toilet infrastructure through pictures and surveys. The following sections describe the status, challenges and opportunities for these schools.

2. Karnataka Government Schools Background

In 2009, there were more than 46,000 government schools in Karnataka that comprised 79% of all schools in the state [4]. 48,00,000 children were enrolled across these schools and nearly 2,00,000 teachers worked with them [4]. These schools typically operate in a co-educational environment and run from 9:30 am-3:30 pm [5]. They teach a range of subjects and follow a medium of instruction in English, Tamil, Kannada, Telugu, or Urdu. In our sample, student enrollment in each school ranged from 10 to 800.

Schools get grants for maintenance and building of facilities through Sarva Shiksha Abhiyan (SSA), a program started by the government of India. SSA was launched in 2001-2002 to ensure all children in the age group 6-14 had access to elementary education by 2010 [6]. The program is sponsored centrally and implemented in partnerships with state governments. It provides a variety of interventions to build new schools in areas without them, enhance infrastructure of existing schools e.g. by building additional classrooms and toilets, provide teachers and resource materials such as textbooks [7]. For example, Rs. 150 crores (1500 million) will be distributed proportionately among states to repair school infrastructure, up to Rs. 10,000 will be granted yearly to schools for maintenance of their facilities, and free textbooks will be provided to all children up to a limit of Rs. 250 for upper primary level [8].

In order to involve the community actively in school administration an amendment was made to the Karnataka Education Act. It proposed the establishment of School Development and Monitoring Committees (SDMC) at the school level [9]. These committees would serve for a term of 3 years and include, inter alia, the school Headmaster (HM) and 9 parent representatives. The SDMC president is intended to be elected by this committee. Among others, the SDMC's duties include creating awareness among parents and getting them to send their children to school, protecting school property from damage, and identifying and motivating third parties to 'adopt' the school [9]. The SDMC conducts monthly meetings to monitor events and make decisions pertaining to the school. It has the power to decide how school grants should be utilized.

As over 90% of the education budget in Karnataka is spent on teachers' salaries, there is not enough money left to spend on providing schools with all the basic necessities. Hence, the government of Karnataka launched the 'School Adoption Program' to encourage individuals, corporations and non-governmental organizations (NGOs) to 'adopt' a school and improve its facilities. Under the program, one can take charge of developing the entire school or specific aspects of it over a specified period of time. For example, through provision of water and toilet facilities, renovation of existing buildings, and training of teachers to improve quality of teaching [10]. Under the program, over 9000 schools have been adopted and over Rs. 200 crores (2000 million) have been raised [11].

3. Survey Methodology

To understand the different problems faced by government school toilets, we decided to evaluate 36 schools in 2 clusters in the Bangalore districts. This comprised of all 16 schools (9 Urdu, 6 Kannada and 1 Tamil) in the urban Kaval Byrasandra and all 20 schools (all Kannada) in the rural Sarjapura clusters, about 30kms from Bangalore city. At the time, Akshara was running community programs in these clusters. The mix of both urban and rural schools and possibility of getting field-assistance from Akshara workers led us to select these clusters.

Through the surveys we strived to evaluate the existing condition of toilets and identify factors that would explain whether toilets function or not. Hence, our surveys were designed to collect both quantitative information about the school and its toilets, and qualitative information that would provide context for this information. We had limited time to speak with the school HMs, so the surveys were intended to be completed within 25-30 minutes. Specifically, our surveys consisted of the following pieces (Appendix A):

- *Quantitative*. Information on the school such as population statistics and number of toilets for male students, female students and teachers. It also included specific details on the school's toilets such as whether they had doors, ventilation and a functional water supply. These could be used to devise toilet ratings and compare toilets. The answers to questions in this section were expected to be well-defined.
- *Qualitative*. Measure of school's satisfaction with their toilets, how the toilets were built and how they are maintained. We also tried to find out how the school deals with toilet problems, and if its toilets were fully functional, find out why. Answers to questions in this section were expected to be open-ended.
- *Visual*. Photos of a representative sample of the school's toilets. These included a shot of the toilet alone, and one with the entire door. These would help explain toilet ratings and provide a more compelling description compared to just numbers.

The surveys were carried out over a period of 3 weeks in March 2011 in relatively informal meetings. We visited each school with an Akshara CO and meet with the HM. The interviewer from MSRI could speak Urdu but in schools where the HMs spoke Kannada or Tamil, the CO helped by translating and facilitating conversation. At the time of visiting 1 of the schools (1 urban and 1 rural) was closed, but we evaluated the remaining 35 schools. Towards the last quarter of the interviews, we started to notice trends in the surveys and observed that most schools had some combination of the popular problems, as described in the Toilet Ratings and Results section.

At the time of surveying, 5 schools did not have any toilets but 3 of them were getting new toilets constructed. If schools had any problems with their toilets or other infrastructure, they mainly approached the SSA directly or indirectly via their SDMC. In rural schools, the gram panchayat, local donors and rich

families in the village community were also approached. In order to maintain existing toilets and build new ones, schools received yearly grants ranging from Rs. 4,000-35,000 from the SSA. For toilets that needed fixing, it was hard for HMs to estimate the cost of fixing them. However, some toilet fixes were estimated to range from Rs. 500-15,000. Of the schools that maintained their toilets, regularly or semi-regularly, various approaches were adopted. Hiring an external cleaner could cost schools Rs. 50-350 per week in some areas, or Rs. 300-400 per month in others. Some schools would call cleaners only when the toilet was extremely dirty or completely clogged. In rural schools, students and teachers did the cleaning. Purchasing cleaning supplies typically cost Rs. 1000-2000 each year.

4. Toilet Ratings and Results

In order to have some way to compare schools' toilets, we devised a rating scheme based on their condition at the time of surveying. Ideally, the rating would indicate the likeliness of the toilets being used. Based on our conversations with HMs, teachers and students at the schools, we deduced the importance of each of the toilet attributes listed in the survey (Appendix A). For each attribute, a school's toilets can receive up to a certain number of points. The score is computed in two parts. First, a raw fraction is assigned to each attribute based on how well the toilets satisfy it. This fraction indicates the proportion of points the toilet would receive for the attribute. This is explained in Table 1 below:

Table 1. Toilet Rating Attributes

Attribute	Description	Raw Fraction
Lock	An aspect of privacy and security. Toilets should be lockable by the user from inside for his or her privacy and by the school authorities from outside to prevent unauthorized use after school hours. *What fraction of the toilets is lockable?*	$\frac{\#\ of\ toilets\ with\ locks}{Total\ \#\ of\ toilets}$
Enclosure	An aspect of privacy and comfort. Toilets should be completely enclosed. They should have doors and be devoid of any major holes. *What fraction of the toilets is completely enclosed?*	$\frac{1}{2}\left(\frac{\#\ of\ toilets\ with\ doors}{Total\ \#\ of\ toilets} + \frac{\#\ of\ toilets\ without\ holes}{Total\ \#\ of\ toilets}\right)$
Cleanliness	An aspect of hygiene and affects the desirability of a toilet. A toilet would ideally be devoid of dirt, sewage and debris. This rated the average condition of the toilets on a scale of 0-4 where 0 is completely dirty and 4 is completely clean. *What is the cleanliness level of the toilets?*	$\frac{Cleanliness\ rating}{Maximum\ scale\ rating\ i.e.\ 4}$
Ventilation	An aspect of hygiene. It is essential for air circulation, and ensures that air inside the toilet is replaced by fresh air from outside. This will get rid of excess moisture and foul odors. *What fraction of the toilets is ventilated?*	$\frac{\#\ of\ toilets\ with\ ventilation}{Total\ \#\ of\ toilets}$
Water Supply	Arguably the most important aspect of a functional toilet. Water is essential for both personal and toilet washing purposes. Without it a toilet would become very hard to use. If a school has a regular water supply source even at one location, water can be supplied to all toilets using pipes, buckets, etc. If water supply is irregular, water can be stored when available but predicting availability is hard. Once stored water runs out, you would have days without any water for toilets. *How functional is the toilets water supply?*	$\begin{cases} 1, if\ water\ supply\ regular \\ \frac{1}{2}, if\ water\ supply\ irregular \\ 0, if\ no\ water\ supply \end{cases}$

Table 2 below shows the constituent points for each of the toilet attributes.

Table 2. Toilet Constituent Points

Attribute	Constituent Points
Lock	10
Enclosure	22
Cleanliness	25
Ventilation	13
Water Supply	30

For each attribute, the product of constituent points and raw fraction is obtained. These products are then summed up to get the school's toilets score. A school's toilets could receive a maximum score of 100. Higher scores indicate greater usability, and vice versa. Of the 35 schools surveyed, 3 schools did not have toilets but were getting new ones built, and 1 school's only toilet was located inside a classroom so it was locked and unused. Furthermore, 2 schools did not have any toilets and were not getting any new ones built in the near future. All 6 of these schools received a toilet score of 0 because at the time of surveying they did not have any unusable toilets. For practical purposes, we refer to these 6 schools in the rest of the document to be without toilets.

Overall, 26% of school toilets had dysfunctional water supply, 26% of schools suffered from some form of vandalism, and 43% of school HMs were unhappy with their toilet facilities. Figure 1 below shows a histogram of the score distributions. We believe that schools that scored lesser than 60 need to improve their toilet facilities significantly. 15 schools (42% of those surveyed) scored below 60, indicating inadequate toilets. 7 schools (20% of those surveyed) scored in the 60-80 range, and they could improve certain key aspects of their toilets.

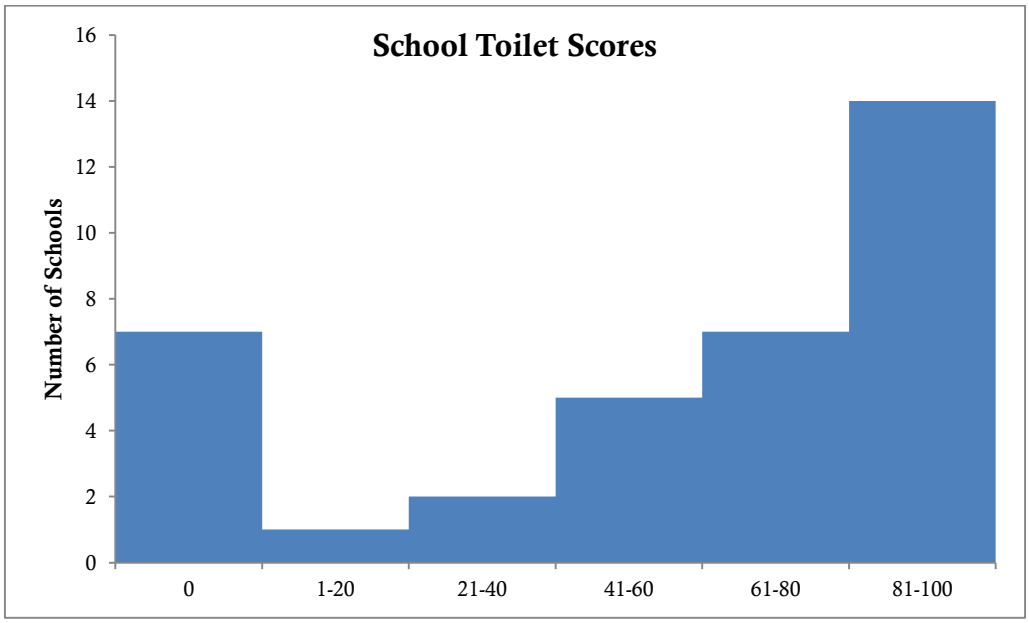

Figure 1. Range of school toilet scores

Additionally, we created histograms based on points received by toilets on the individual attributes. These do not include the 6 schools without toilets. Figure 2 and Figure 3 show the distribution of points received by school toilets on enclosure and locks respectively. Regarding enclosure, 6 schools (21% of those considered) had toilets with missing doors or major gaps in enclosure. Regarding locks, most of the toilets were well equipped.

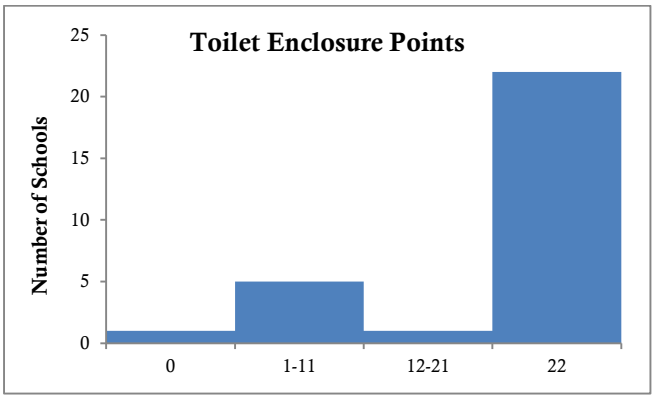

Figure 2. Range of points received by toilets on enclosure

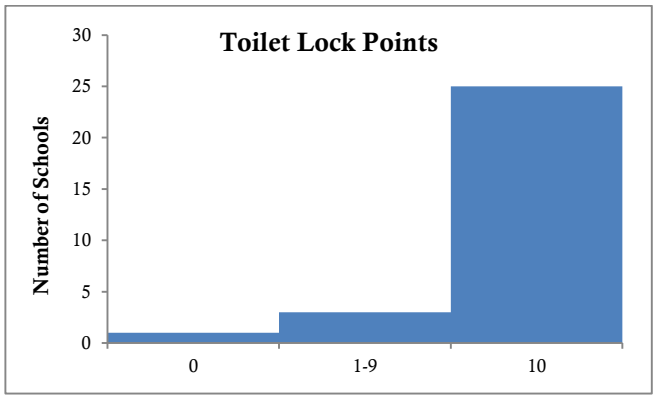

Figure 3. Range of points received by toilets on locks

Figure 4 and Figure 5 show the distribution of points by school toilets on cleanliness and ventilation respectively. Regarding cleanliness, 22 schools (76% of those considered) had toilets scoring 16 points or below indicating poor cleanliness and sanitation. Regarding ventilation, most of the schools had toilets with good ventilation. Only 4 schools (14% of those considered) had toilets with no ventilation.

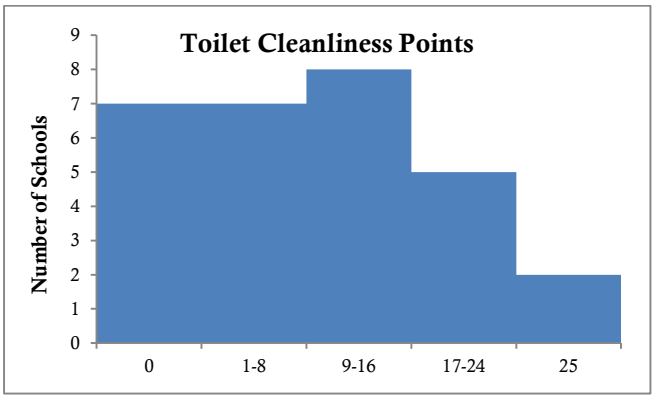

Figure 4. Range of points received by toilets on cleanliness

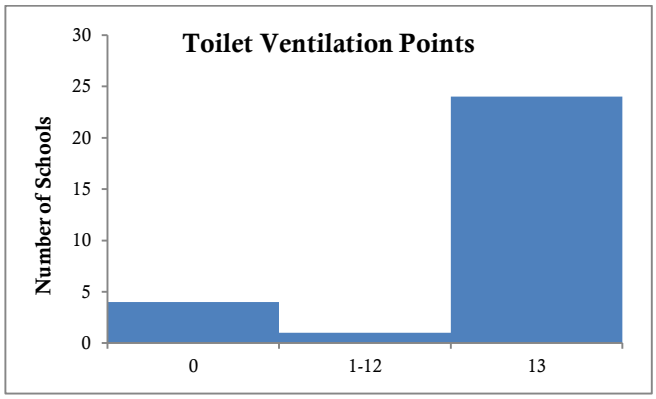

Figure 5. Range of points received by toilets on ventilation

Figure 6 shows the points received by school toilets on having a functional water supply. 0 points indicates no water supply, 15 points indicate irregular water supply, and 30 points indicate regular water supply. 8 schools (28% of those considered) did not have toilets with regular water supply.

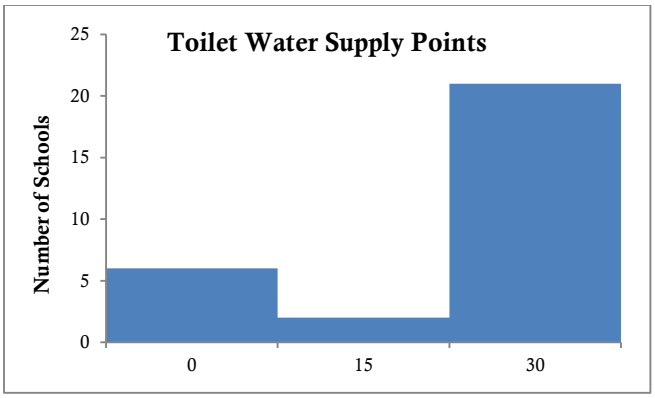

Figure 6. Points received by toilets on functional water supply

5. Case Study I: Urban School (Toilet Score 48.0/48.0)

This school was based in the Kaval Byrasandra cluster in Bangalore. It was established in 1942 and had a total population of 379. This consisted of 196 male students, 172 female students, and 11 teachers. Students commuted from areas as far as 3kms away. The HM mentioned that the parents were very interested in their children's well-being and attendance did not seem to be an issue.

The school had 16 toilets; 8 for male students, 6 for female students, and 2 for teachers. The male toilets were built about 2 years back; the female toilets were built at the time the school was built. The HM is outreached to a Member of the Legislative Assembly (MLA) and got him/her to build the 8 male toilets and ensure proper drainage. The school HM was happy with the condition of their toilets. All student toilets had doors, were lockable, and had complete enclosure. They were sufficiently clean, well maintained and ventilated. The school uses the annual grant from SSA to maintain the toilets. It hasn't faced any major problems with the toilets in the recent past.

The pictures below serve as a snapshot of the school's toilets. Figure 7 shows a sample of the school's student toilets. Figure 8 shows a close-up of one of the toilets in Figure 7. You can clearly see the water supply through the use of piping, tap and bucket. The white spots on the floor were left after a recent paint-job.

Figure 7. A sample of well-maintained urban school toilets Figure 8. A good urban school toilet

6. Case Study II: Urban School (Toilet Score 22.0/48.0)

This school was based in the Kaval Byrasandra cluster in Bangalore. It was established in 1960 and had a total population of 70. This consisted of 30 male students, 37 female students, and 3 teachers. The students came from the same area as the school. However, at only 60-70%, attendance was not very good. A number of the students go 'school-hopping' i.e. attending a school until they receive free items such as school uniforms, pencils, etc. Once they obtain all the free items from a school, the students enroll at another school in the area to get a new set of free goods. In one case, we saw a school offer saris (Indian garments worn by women) to parents to keep their children in the same school.

The school had 4 toilets; 3 for male students and 1 for the teachers. Female students use any toilets that are available. It was not known exactly who had built the toilets and when. The school HM was completely unhappy with the state of their toilets. All 3 student toilets had doors, were lockable, and had complete enclosure. However, they were not being maintained and are extremely dirty. 2 of these 3 toilets were completely blocked and dysfunctional. The toilets did not have any system of ventilation and the lack of proper drainage piping meant that they did not have functional water supply either. The school's water source provided water only once in 4 days. The HM was unable to estimate the expenses involved in fixing the school toilets.

The pictures below serve as a snapshot of the school's toilets. Figure 9 shows the school's student toilets. Figure 10 shows a toilet that is completely blocked and dirty. Figure 11 shows the top-half of the same toilet. It is filled with spider webs, and shows the lack of any kind of ventilation.

Figure 9. A sample of poorly maintained urban school toilets

Figure 10. A blocked and dirty toilet

Figure 11. Upper half of toilet

7. Findings

7.1 It is hard to get an accurate state of school toilets due to inconsistencies and lack of toilet usability data in the DISE database

The District Information System for Education (DISE) is an extensive database on elementary education in India, created by the National University of Educational Planning and Administration (NUEPA). DISE has school 'report cards' of more than 1.3 million schools providing qualitative and quantitative information about them [2]. The quantitative piece includes information about the school, its staff, facilities and enrollment (Appendix C). The qualitative piece includes supplementary information for the quantitative piece such as descriptions of the school background, facilities, teachers, enrollment, and its strengths and weaknesses (Appendix D). However, these only mention whether the school has toilets for boys and for girls, and can be misleading because even if a school has separate toilets for both sexes, they could be unusable due to a variety of reasons [3].

While comparing our survey results to the latest set of information (2009-2010) on the DISE, we found several inconsistencies. First, we were unable to find 3 of the visited schools on DISE. Second, there were inconsistencies in their noting of the presence of boys and girls toilets for 6 schools (18% of those surveyed

that had records in DISE). In 2 cases, DISE said toilets for at least one sex were present but in actuality there were none. In the other 4 cases, DISE reported that there were no toilets but in reality there were toilets for at least one of the sexes. Hence, there were issues with the records of 9 schools (25% of those intended for survey). In brief, it is hard to get a reasonably accurate state of school toilets from the information on DISE.

7.2 There are significant differences in key attributes of urban and rural schools

On an average, the urban schools had an average population of 154, including teachers. This was significantly higher than the average rural school population of 57.8. While female students formed 49% of the school population in rural schools, at 51%, they are the majority in urban schools. There could be 2 main reasons for this: (i) urban parents prefer to send sons to private schools and daughters to government schools (as explained later in this document), and (ii) some urban parents prefer that their sons help with their day-to-day work rather than regularly attend school. Rural schools had a higher toilet score at 65.1 whereas urban schools' average score was 48.3. This translated into their satisfaction with 68% of rural school HMs being happy with the state of their toilets, compared to 44% for urban schools.

Generally, rural schools' toilet facilities consisted of 2 toilets, 1 each for male and female students, along with urinals for each sex. Figure 12 shows a typical rural school toilet facility. There is a toilet and set of urinals for each sex separated by a boundary wall in the middle (not visible in the picture). A water tank is placed on top. Figure 14 shows a set of urinals in the same rural school, and Figure 13 shows a typical toilet. In urban schools, the toilets were varied in their design, layout and numbers.

Figure 12. A typical rural school toilet facility

Figure 14. Urinals at a rural school

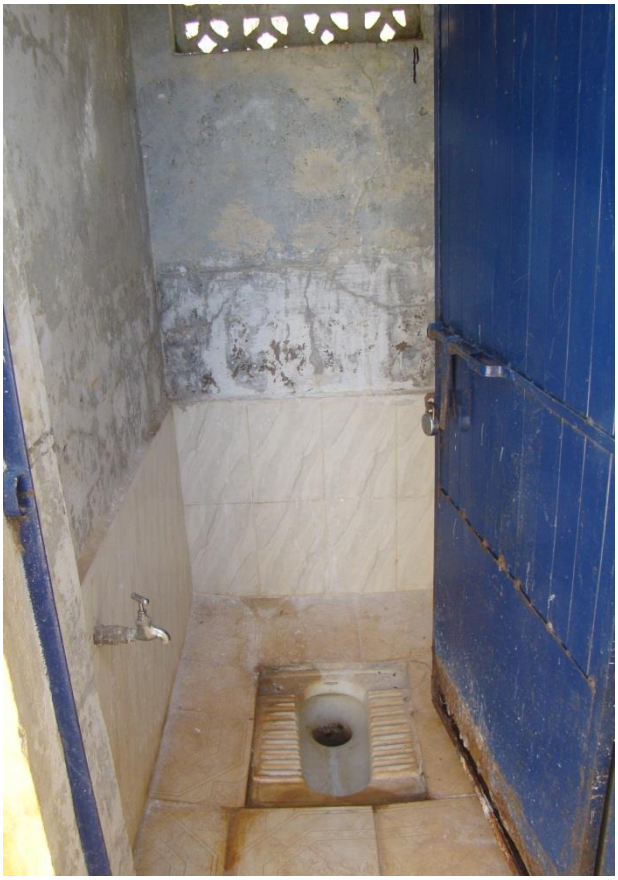

Figure 13. Typical rural school toilet

7.3 Poor toilets pose major problems and concerns for students, teachers and parents

If a school's toilets are unusable, it presents a major inconvenience to the students and affects the routine functioning of the school. Students are forced to go outside the school to defecate. This might mean going to the corner of the school ground, in a bush behind school, or even making a trip home. In fact, a number of children travel home to access toilets, and this means missing out on classes. Figure 15 below shows an area, beside a rural school, used by students for defecation. During lunch break, children use the area by the trees to urinate and defecate. This is bad for the area's hygiene, as bugs would transport germs around. In a survey of 460 schools across Karnataka, conducted by the Policy Planning Unit (PPU) of the Government of Karnataka in 2004, only 44% schools reported that they had toilets [9]. Grover and Singh observed that functional toilet facilities in schools were essential for enrollment and regular attendance in 2 districts in Tamil Nadu [12]. They found teachers complaining about irregular attendance as students go back home to access toilets. Also, parents are more likely to send their children to school if it has separate toilets for boys and girls.

Figure 15. Area outside school used by students for defecation

To understand parents' views on school toilets, we attended 2 parent-teacher meetings in the Kaval Byrasandra area. At the first school, there was no functional water supply so children came home during lunch to use a toilet. The school was located close to a busy bus station and children had to cross a main road in front of the school. This road is bustling with vehicles and there had been accidents in the past. So the parents wanted the school to improve toilet facilities so children would not have to leave school in the middle of the day.

At the second school, there was no functional water supply either and the toilet was dysfunctional. So the children came home to use a toilet. The children lived as far as 1km away and each visit to the toilet meant missing out on at least half an hour of school. Additionally, a number of parents work during the day and are not at home to monitor children when they come to use the toilets. These children get distracted on the way back to school and start playing in the streets missing out on more school time.

7.4 Many schools face water supply problems especially in urban areas

Water is essential to the functioning of a toilet. It is needed by school authorities to flush out wastes, clean and maintain the toilet. Toilet users need water to maintain personal hygiene after urinating or defecating. Typically, schools obtained water through a connection from water wells. In urban areas, schools need to get this connection from the Bangalore Water Supply and Sewerage Board (BWSSB) [13]. In rural areas, schools typically got a free water supply from the gram panchayat i.e. the local village government, either in the form of a connection or tankers. Some schools have water wells located close by. They use electric motors to pump out water and store it in tanks for later use. Figure 16 shows an example of a water well pump at a rural school.

Figure 16. Rural water well pump

In our survey, 26% of the schools did not have regular water supply. This issue was prominent in the urban area where 42% of schools did not have a regular water supply, compared to 18% in rural areas. Schools either did not have a water connection from the municipality, or there was simply a water shortage problem in their area. Getting a water connection and installing a toilet water supply line was estimated by urban school HMs to cost between Rs. 3,000-10,000. In a survey of 427 students, from 460 schools across Karnataka, conducted by the Policy Planning Unit (PPU) of the Government of Karnataka, 70% students said that their toilets did not have water [9]. So even if a school has toilets, they could be unusable due to the lack of a functional water supply.

7.5 Vandalism is a non-trivial problem that can have serious consequences for schools

Vandalism is a complex social problem that we found in both urban and rural schools. It causes damages to school property and if these are not fixed quickly, it could lead to more serious crimes in the area [14]. Overall, 26% of all schools surveyed suffered from some form of vandalism. 32% of rural schools had vandalism compared to 19% of urban schools. However, vandalism seemed to have a more damaging effect in urban schools as observed from HM complaints. There also seemed to be a direct correlation between school happiness with its toilets and the presence of vandalism. Of the 9 schools that had vandalism, only 1 school was happy with its toilets.

We found that the types of vandalism fall into 2 broad categories and differ in terms of their motivation:

1. *Stealing.* In this type of vandalism, the school loses pieces of its infrastructure. This is a major annoyance and causes financial loss to the school. Vandals typically steal things from the school and sell them elsewhere. These typically include metallic or plastic things like door locks, taps and pipes. Here, vandals are motivated by the potential to make a quick buck on the side. Metallic door locks can be typically sold for Rs. 10-20. In our opinion this is potentially harmful as it can lead to partying vandalism at the school. It is typically found in urban areas. The rural schools that suffered from this

were located in the small town of Sarjapura, which provided an urban-like environment. Figure 17 below shows a lock attacked by vandals at an urban school.

2. *Partying*. In this type of vandalism, the school's facilities are used for 'antisocial' activities such as drinking, drug usage and rowdyism. As a consequence of these activities, school property gets damaged. Here, vandals are looking for an area where they can gather up for their recreational activities. So schools that have an open area, such as a playground, are ideal venues. Often it is the toilet facilities that suffer as the vandals misuse and trash them. This type of vandalism is found more commonly in schools, and the offender is typically a gang of youths from the same or surrounding areas, that will stay at a school for an extended period of time. Figure 18 below shows the aftermath of partying vandalism at a rural school toilet.

In both cases, vandalism occurred after the school closed for the day. Nobody is present at the schools after this time. Vandalism tends to increase over the summer holidays as nobody is present at the schools even during the day, and schools incur huge costs in maintenance after the summer. Additionally, we observed an isolated case where vandalism was motivated politically. The vandals did not approve of extra educational programs taking place after school hours. The school was reluctant to end these programs and the vandals consequently destroyed its toilet piping.

Figure 17. Lock attacked by vandals

Figure 18. A vandalized toilet

Akshara's COs indicated that vandalism is prevalent in most urban areas and hard to deal with. Schools typically have low-height walls (~5-6 feet) and ineffective gates. They have tried a variety of approaches to deal with vandalism, unsuccessfully, and have often received threats and verbal abuse from vandals:

- *Urban school suffering from acute stealing vandalism*. The school is located close to scrap metal buyers and sellers, and vandals kept stealing metallic things from the school. The school continually replaced damaged gate locks and the HM showed us a jar full of locks damaged by vandals. The school eventually got tired of replacing locks and setup gates at the school boundary and at the entrance to the building. This has had limited success and vandals recently stole taps from their toilet facilities.
- *Urban school suffering from homeless people.* This school indicated that they used to lock their toilets after school hours, but this caused homeless people in the area to defecate in the school playground facing the classrooms. So the school has stopped locking its toilets so homeless people would rather defecate in the toilets than on the playground. This is still an unresolved issue as the location of misuse has shifted from the playground to the toilets.
- *Urban school suffering from antisocial activities on its ground.* This school suffered from vandals using its ground for antisocial activities. So the school has gotten a family to live in a small house by the school grounds in hope that this would deter vandals from coming to the school. It is unclear whether this has had any significant effect.

- *Rural school suffering from stealing vandalism and rowdyism*. In our sample of rural schools, this one suffered the most from vandalism. It had a combination of stealing and partying vandalism. In trying to get help from the police, the HM has often received verbal threats from vandals. Once, the HM found out who was stealing things and complained to the police. The police said that the offender was "too weak" and would die if they beat him for punishment. So they let him go. The school has now stopped approaching the police as "they don't do anything."

It is conceivable that having a private security guard, such as a watchman, round the clock might get rid of vandalism. However, we have found this to be untrue. Although the presence of a watchman might deter vandalism, it is ineffective in most cases as vandals come in groups. Vandals would intimidate the watchman and beat him up if he tried to stop them. The watchman, generally being old and weak, would not go out of his way to stop the vandals, who would then have their way at the school. The people living around the schools are afraid of the vandals as well and do not want to get their hands dirty confronting the vandals. Only a "real cop" would have the confidence and authority to confront and stop the vandals [14].

To understand the environment and conditions under which vandalism takes place we visited an urban school, where vandalism was prevalent, just after sunset. The school gate was open and although a lock was present, it was left unlocked. Figure 19 shows the school gate left open with an unsecured lock. There was no watchman and no lighting at the school. All of the light in the school came from the streetlights outside the school. The school walls were pretty high and once you were in, you were well-shielded from onlookers outside. The school had a creepy feel and anyone was free to enter the school at will. We observed for an hour as 4 groups of people came into the school, hung out, used the toilets, urinated in the school grounds and left. Most of them seemed to be in their 20s. Figure 20 shows a couple of trespassers urinating on the school ground. None of the people who lived in the area looked at us with suspicion, suggesting this was a common occurrence.

Figure 19. School gate left unlocked

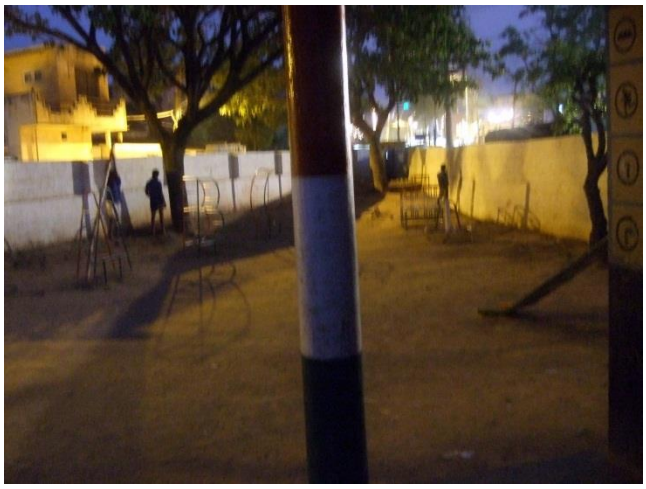

Figure 20. Trespassers urinating on school ground

To understand the police's views on vandalism, we met with an ex-Deputy Commissioner of Police (DCP) in Bangalore. He mentioned that the police do not get many reports of vandalism, although there is the occasional case of partying vandalism. Schools are hesitant to approach the police as their reputation could be affected if people came to know that they were hit by vandals. The police believed that defending against vandalism was the school's responsibility and that the community should take ownership of it as most

vandals belong to it. If vandalism is severe, things are getting stolen and the watchman is attacked, the police should be notified. However, the police have priorities and are typically overworked. Hence, they would monitor the area around the school by taking rounds for a few days but stop when nothing unusual was observed.

We observed that there was no vandalism in schools that had some kind of community support from the area. This support could come from the immediate community that lives around the school, the gram panchayat in rural areas, or even a nearby mosque that has taken the school under its wing. These entities protect school property against misuse from vandals. In a couple of cases, an SDMC member lived close to the school and this ensured that the schools were not vandalized. In rural areas, inhabitants take ownership of their schools. The rural schools that were hit by vandalism were located on the outer side of the villages. In this case, abusers would typically be people passing by the village such as truck drivers.

In conclusion, vandalism is a complex and nagging social problem, where the resulting damages need to be fixed promptly. Otherwise, people would feel that there is no order in the area and do as they please. According to Wilson and Kelling, vandalism can "occur anywhere once communal barriers – the sense of mutual regard and the obligations of civility – are lowered by actions that seem to signal that 'no one cares'" [14]. Vandalism is also an issue that nobody wants to take ownership of. We believe the community should start by taking ownership of the problem and exercising informal social control. For example, adults in the neighborhood should frown on unwanted trespassers and scold children when they engage in rowdy behavior. Left ignored, the problem will continue and make it difficult for the schools in question to maintain their infrastructure. Even if one were to provide financial assistance and fix toilets in these schools, without community support and care, it would be a matter of time before they are vandalized.

7.6 Schools with indifferent SDMCs do not get proactively improved

The School Development and Monitoring Committees (SDMC) were established at the school level to involve the community in school administration. SDMCs are supposed to proactively improve their school, for example, by creating awareness among parents and getting them to send their children to school, and identifying and motivating third parties to 'adopt' the school [9]. However, while carrying out our survey, we observed that a number of urban school SDMCs did not perform their duties appropriately. In one of the parent-teacher meetings, we met with an SDMC president who was unsure of her role and responsibilities in the committee. She was also unable to tell us how the school gets financed. Some SDMC members are also unaware of their membership. A study done in 2004 concluded that SDMC members were unclear about their authority and duties [9]. The SDMC members had low awareness about issues pertaining to finance, and certain duties like ensuring the school runs for the minimum number of working days and mobilizing parents to enhance schools [9]. Additionally, the norms governing the composition of SDMCs seemed to be unclear to schools and only 55% of SDMC presidents felt their committee was functioning effectively [9]. Having an ineffective SDMC means that critical decisions pertaining to the school are made subpar. There is nobody actively fundraising for the school and looking out for adopters. In essence, the SDMCs then play the role of being indifferent parents.

Schools with buildings not owned by the government get limited support from it

In 3 of the urban schools, we found that the school buildings did not belong to the government, and this proved to be a limiting factor in their growth. In one of the urban schools, the school building was donated by a local community leader who did not want any involvement from external agencies. The SDMC exercised strict control over the school and limited the HM in improving certain things in the school. In another case, an urban school was being allowed to use a single-floor building that was converted into a marriage hall in evenings. There was a shortage of toilets and water, and the school's only toilet was very poor hygienically. We met with a government education coordinator for the Bangalore district who said that although the government has provided some funding in this case, it is generally very hard to justify providing funding for construction projects to schools that are not on government property. This is a limiting factor because in these cases, the government or other external agencies will find it hard to help build facilities at schools.

7.7 Urban parents in our sample were indifferent to their children's studies

From our conversations with urban school HMs and 4 sets of parents in Shivajinagar (urban Bangalore), we found that most parents were not interested in or aware of their children's studies. Parents want their children to "go to school" but are not aware of what they are studying. Most parents belong to the working class and work as rickshaw drivers, cleaners and house servants, and were typically uneducated or educated till grades 5-7. Many of them send their children to school either to learn English as "it would be useful in getting a better job." Others think of the school as a daycare facility and send their children there while they are away for work. The children get free lunch at the schools and are essentially "taken care of" during the day. The parents we met were neither able to tell us the subjects that their children were studying nor the facilities that the school had. Their children had to tell us the classes they were taking at the school. 3 out of the 4 sets of parents were completely satisfied with their children's studies. 1 of them complained about the school toilets and method of teaching.

7.8 Enrollment in schools is affected by social, material and financial factors

Enrollment of children in both rural and urban schools is affected by a number of factors including social, material and financial:

- *Social.* In rural areas, parents preferred to send their children to private schools. Although there are multiple reasons for this, such as "learning good English," a key factor was the social stigma attached with sending children to government schools. Rural HMs told us that parents would be "looked down upon" if they sent their children to government schools, and people in the village would ask, "Don't you have enough money to send your kids to private schools? Why are you sending them to government schools?" There was clearly some prestige associated with sending one's children to private schools. However, attendance was high in rural government schools and parents were supportive of the schools. The HMs did not indicate the enrollment to be a problem but we thought it was interesting to outline.
- *Material.* In certain urban areas, children would work after school hours doing tasks like cleaning dishes and helping their parents run shops. Parents of these children prefer that they work and help the family earn money rather than attend school. In an effort to attract these students and ensure enrollment, schools will often give away freebies, such as uniforms, bags and pencils, to the children. Some schools

even give away saris to parents to get them to stay with the school. However, parents and students then go school-hopping, where they take all the freebies from a given school and then move on to another school to get freebies from there. It occurs in areas where there are a number of schools and the parents belong to the working class. School-hopping is a source of major headache for school HMs, who can only retain students as long as they keep giving away freebies.

- *Financial*. A large number of urban parents in our sample faced severe financial constraints and sent their children to government school when they could not afford sending them to private school. In one case, parents sent their son to a private school and their daughters to a government school. In another urban school, we met with some students and found that they spoke relatively good English. They mentioned that they used to attend a private school but are now attending a government school. COs indicate that parents send their children to private schools till they are affordable. But as the children go to higher classes, private schools get increasingly expensive and according to one teacher, the children are subsequently "dumped" into government schools.

7.9 Community ownership is essential for schools to sustain their toilet infrastructure

We have found schools with community ownership more likely to be running successfully and satisfied with their toilets. Major problems such as vandalism are absent here and issues such as non-regular water are dealt with better. We observed this mainly in rural schools and in urban schools that were adopted.

In rural Bangalore, schools generally received support from the gram panchayat. The village community had a sense of ownership of the school and the people would look after them. They would receive free water connections from the panchayat and vandalism would be less prevalent. In most of the rural schools, teachers and students would clean and maintain the school toilets. The school saved on hiring external cleaners and only paid for cleaning supplies. However, schools that were located on the outer side of the villages and did not receive community support were subjected to vandalism by passers-by.

In urban Bangalore some schools received support from local organizations of significance, such as mosques. In these cases, the mosques would let the school use their facilities and protect them after school hours. For example, one school did not have any toilets so a nearby mosque allowed students to sue its toilet facilities for an hour each afternoon. In another case, a school did not have sufficient space for classrooms so a mosque allowed part of its floor to be used for classes during non-prayer timings. In other cases if schools were adopted, they have a community in the form of an organization or person who is looking after the well being of the school. The adopter provides funding to the school to build infrastructure, purchase supplies and hire teachers. The adopter also ensures that the school is accountable by checking whether teachers are teaching properly and whether the donated money is being used properly. For example, an urban school, that is currently adopted, was facing a number of financial and infrastructure problems about 5 years back. After the adopter took over the school, the infrastructure was renovated and new facilities were built. The school is now one an exemplary one with attendance rates as high as 90%.

On the contrary, having an indifferent or detrimental community makes it hard for schools to operate. For example, one urban school was located in an area with poor water supply and would store water in its tank when it was available every 15 days. However, some people in the neighborhood would use up that water and complicate the problem further. Grover and Singh recommend empowering local communities to monitor their schools and increase their accountability and consequently, the quality of their education [12].

7.10 School toilet report cards have potential to incite stakeholders

After completing our surveys, we wanted to try and provoke schools to take ownership of their toilets. Keeping this goal in mind, we created report cards for a couple of schools' toilets. To compare schools, we created report cards for 2 schools that had poor toilets and other ones in the area that had well-maintained toilets. This followed a grading system similar to how children are graded in their classes (grades A-E), and had both an overall grade and a grade for each toilet attribute. We included pictures of the toilets so people could see the difference (Appendix B). We found that comparing schools' toilets in the form of these report cards could enrage them over the condition of their toilets.

To understand parents' perceptions of school toilets, we attended parent-teacher meetings for 2 schools that had poor toilets. These meetings are conducted twice a year and this one happened before the schools closed for the summer. At both schools, we obtained the HMs' permission to show these to parents and ask them about the school toilets. We visited one of the schools when it reopened after the summer and found that the HM was very angry because of the toilet report cards we showed about a month back. The CO with us helped alleviate her temper. The HM was angry because:

- We showed pictures of their toilets, compared them to another school's toilets, and gave their toilets a 'C' grade.
- "Were going to put the pictures on the internet." We had neither discussed nor mentioned this so there seems to have been a big misunderstanding. However, it shows that the school was afraid these pictures could be put on the internet as "everybody could see them."
- We asked the SDMC president, who was present at the meeting, about her role and how the school receives funding. The president was unsure of her role and did not have concrete details about funding. In essence, this made the president and school "look bad," and the HM was infuriated as matters pertaining to funding and internal operations of the school are "supposed to be private."
- She did not find our "research" useful and complained that instead of figuring out the school's challenges, we should get her a watchman or help fix some of the problems.

The school report cards seemed to have a strong effect mainly due to the toilet pictures and the comparison with another school in the same area that had better toilets. It was the equivalent of a teacher calling out student grades in a classroom. The HM questioned why her school received a poor grade, and said that it makes their school look bad. Now, one could get enraged by the toilet report card comparison due to a couple of reasons. You could get angry because you have not been trying and it almost forces you to do so. Or because you have been trying hard but due to reasons that are not in your control, you have not been successful. In this case, the comparison could be demeaning or mocking. It is interesting to point out that the anger seemed to originate from the school committee and not from the parents. Something must have happened after the parent-teacher meeting to cause the anger.

Since the goal of our report cards was to stir a reaction from the school that could be channeled to fix the problems, we consider this a success. Schools with deep problems are typically frustrated with organizations of authority, such as governments and panchayats, as they promise change but "nothing seems to happen." This compounded with nagging problems such as vandalism means that schools have a lot of anger accumulated in them. The toilet report cards allowed the school's HM to vent some of her anger. We need a system where this frustration can be channeled to a productive cause and help improve their schools.

8. Related Work

Although there is no significant work that directly applies to our project, there are several works that dealt with related aspects. The main related work centers on (i) improving education in developing regions, (ii) information on current state of government school toilets in India, and (iii) vandalism in developed regions. Although these works provided insights they did not apply directly to our work due to difference in focus, difference in context, inaccuracy and lack of critical information.

There is previous work that highlights the importance of understanding usability of toilets. Birdthistle et al. conducted a systematic literature review of 78 select studies to check whether provisions for separate toilets for girls have an effect on their educational outcomes [3]. However, they did not come across any studies that were designed to evaluate the impact of separate toilets for girls. They conclude that due to the lack of studies in this area, "there is evidence neither for nor against the impact of separate toilets for girls on their educational outcomes. They then pose reasons why this area may not have been studied and suggest that it would be better to first understand if there are "enough" toilets in schools and whether they are "good enough" to use.

Although there is work on improving education in schools in developing regions, there is no significant work on improving or sustaining their infrastructure. For example, Grover and Singh conducted study of schools in 2 districts in Tamil Nadu, India, to assess the state of primary education at the time and find reasons behind its limitations [12]. Their findings mainly pertain to quality of education. When they focus on school infrastructure, it is on cramped classrooms and, briefly, on how the lack of latrines (toilets) affects attendance. Subsequently, their recommendations are also on improving the quality of education.

Other works provide information on the state of government schools in India. For example, the PAISA initiative uses surveys to understand the flow of funds given to schools by the SSA [15]. Each year, a PAISA survey is conducted with a focus on school development, school maintenance and teaching learning material grants. The 2009 PAISA survey included 14,560 schools in India. It found that schools spent all their money but not always effectively, and less than 50% of the schools that received school development and maintenance grants had usable toilets [15]. It also finds that in Karnataka 40% of the schools that received these grants did not have usable toilets and 17% did not have working hand pumps. The 2010 PAISA report states that in Karnataka only 50% of the toilet facilities are "not locked and usable" [16]. Additionally, DISE has information on a number of aspects of elementary schools in India [2]. However, as described earlier, it contains inconsistencies and provides limited information about the usability of toilets.

There is a lack of contemporary work that aims at understanding vandalism in developing regions. For example, Scott et al. describe tools to assess and develop strategies against graffiti and juveniles damaging property [17]. Their idea of utilizing existing resources by building relationships with different stakeholders in the community applies here. However, the example cases are those from California, U.S.A., and the British Isles and do not apply to our context due to the differences in nature of vandalism and prevailing physical and community infrastructure. In his work published in 1985, Patience studied vandalism in 2 regions in Adelaide, Australia [18]. He found that adolescents committed vandalism because they were bored and recommended setting up recreational facilities. Although boredom could be a cause for partying vandalism, it would be difficult to setup recreational facilities in the highly congested slum and non-slum areas of urban Bangalore where it is observed.

9. Conclusions and Recommendation

- Our field visits indicate that dysfunctional toilets are a serious barrier to the effectiveness of government schools, especially in urban areas. 56% of urban schools in our survey were unhappy with the state of their toilets.
- Cosmetic problems with these school toilets are often deeper than they seem. A one-time investment is insufficient to permanently fix the toilets in many schools due to vandalism and challenges in maintaining the toilets. Sometimes the problem is dependent on broader community infrastructure such as water supply lines that require a larger intervention to fix. Finally, some schools are unable to receive government support due to the government not having formal ownership of the building.
- Vandalism has serious consequences for government schools, and different types of vandalism have different remedies. Designing for improved locks and security of schools could reduce stealing vandalism. Community ownership of the school and SDMC empowerment could potentially curb partying vandalism.
- Steps should be taken to empower SDMCs by mentoring them and making them aware of their capabilities and responsibilities. This could help motivated parent and community members get involved in remedying issues faced by schools in their area.
- Having community ownership or an adopter is a key to the sustainability of toilet infrastructure and accountability of the school. In our surveys, we found that schools with support had higher attendance rates, were devoid of vandalism and dealt with water problems better.
- The school toilet report cards have potential to incite school stakeholders regarding the status of their school. Future work should explore how this energy could be channeled into improving school processes and outcomes. One possibility is to use community-generated videos to increase awareness about social issues in the community via public and private screenings. This is currently being done by Video Volunteers through their Community Video Units initiative [19]. By giving the community a key part to play in the process, participation and ownership could be increased.
- In order to be useful and scalable, technology solutions should fit into people's social systems and environments. This means following a user-centered research process to ensure that one is tackling the problem and not its symptom.

10. Acknowledgments

Multi-faceted work like this would not be possible without the involvement of several groups of people, and we have learned a great deal through it. I thank all the people involved for their help in this work.

At MSRI, Bill Thies mentored and provided creative advice throughout the project, helped brainstorm several ideas and review this document; Ed Cutrell, Indrani Medhi, fellow colleagues and interns provided thoughtful feedback at various points in the project.

At Akshara, Gautam John supported our ventures on the field and helped in brainstorming several ideas; Megha Vishwanath and Shivangi Desai provided various Akshara data on the schools along with suggestions on the project; Shankar Narayan helped coordinate school visits with the COs; Finally COs Tasmiya, Kouser, Mylunnisa, Shamshad and Rajappa took us to all the schools, facilitated conversations, hung on tight and waited patiently while the toilet pictures were being taken.

At the schools we visited, the HMs, teachers and parents were cooperative and took time out of their busy schedules to share their school experiences with us.

I apologize if anyone has been inadvertently left out. I hope that you, the reader, will find this work educative and resourceful, and share it with those who are currently working in or interested in working in this space.

11. References

[1] UNICEF. (2005, January) Lack of safe water and sanitation in schools jeopardizes quality education. [Online]. http://www.unicef.org/media/media_24898.html

[2] National University of Educational Planning and Administration. School Report Cards. [Online]. http://www.schoolreportcards.in/

[3] Isolde Birdthistle, Kelly Dickson, Matthew Freeman, and Leila Javidi, "What impact does the provision of separate toilets for girls at schools have on their primary and secondary school enrolment, attendance and completion?," London School of Hygiene & Tropical Medicine and Institute of Education, 2011.

[4] National University of Education Planning and Administration, "DISE 2009-10 Flash Statistics: Elementary Education in India, Progress Towards UEE," 2011.

[5] Deccan Herald. (2011, May) School timings changed in B'lore Urban.

[6] Ministry of Human Resource Development, Department of Elementary Education & Literacy, "Sarva Shiksha Abhiyan: A Programme For Universal Elementary Education, Manual For Planning And Appraisal," 2004.

[7] Department of School Education & Literacy, Government of India, "Sarva Shiksha Abhiyan: Framework of Implementation," 2011.

[8] Department of Public Instruction, Government of Karnataka, "Sarva Shiksha Abhiyan Framework," 2008.

[9] Centre for Child and Law, Policy Planning Unit, "School Development and Monitoring Committee: Research Study," Bangalore, 2004.

[10] Department of Public Instruction, Government of Karnataka. (2009, January) School Adoption Program. [Online]. http://www.schooleducation.kar.nic.in/SchoolAdoption.htm

[11] The Secretariat of the Education Department, Government of Karnataka. Karnataka Education. [Online]. http://karnatakaeducation.gov.in/pdf_files/AREng0607.pdf

[12] Shuchi Grover and Nishu Harpreet Singh, "The Quality of Primary Education: A Case Study of Madurai and Villupuram Districts in Tamil Nadu, India," Center for International Development, Harvard University, 2002.

[13] Bangalore Water Supply and Sewerage Board. [Online]. http://www.bwssb.org/application_watersupply.html

[14] James Q. Wilson and George L. Kelling, "Broken Windows: The police and neighborhood safety," The Atlantic, 1982.

[15] Anit N. Mukherjee, Sruti Bandyopadhyay, and Satyam Vyas, "PAISA: Do Schools Get Their Money?," Accountability Initiative, 2009.

[16] Ambrish Dongre, Aditi Gandhi, and Satadru Sikdar, "PAISA: Do Schools Get Their Money?," Accountability Initiative, 2010.

[17] Scott, Michelle L., Nancy G. La Vigne, and Tobi Palmer, "Preventing Vandalism," The Urban Institute Justice Policy Center, Washington, DC, 2007.

[18] Allan Patience, "A Report on a Study of Vandalism in Two Selected Regions in Adelaide," School of Social Sciences, The Flinders University of South Australia, 1985.

[19] Video Volunteers. (2011, July) Community Video Units (CVU). [Online]. http://www.videovolunteers.org/programmes/cvus

Appendix A: School Toilet Survey

- Founded –
- Population –
    - Male students –
    - Female students –
    - Teachers –
- Number of toilets –
    - For male students –
    - For female students –
    - For teachers –
- Evaluate condition of toilets
    - Private?
        - Door? –
        - Lock on door? –
        - Complete enclosure (no holes, missing walls, etc.)? –
    - Hygienic?
        - Absence of dirt, trash, sewage, debris, etc.? Scale from 1 to 5 (where 5 is complete absence)? –
        - Ventilation –
    - Functional water supply? –
    - Etc.
- Toilet logistics
    - Is school happy with its toilets? –
    - When were the toilets built? –
    - Who built them? –
    - How frequently do toilets require maintenance? –
        - When did the toilet last break? –
        - How was it fixed? –
    - If toilets are in good condition, find out why. –
    - Who does school go to when they need to get their toilets fixed? How successful have they been? –
    - How much would it cost to repair these toilets? –
- Miscellaneous notes
- Pictures
    - Door shot
    - Toilet shot

Appendix B: School Toilet Report Cards

Schools with lower grades

School 1 (S1)

Toilet Report Card

Toilet Facility	Grade
Door	E
Lock	E
Enclosure	E
Cleanliness	D
Ventilation	A
Water Supply	E

Overall Grade: E (Fail)

Fig. 1 S1 – Toilet


Fig. 2 S1 – Problem with drainage from upper floor and hygiene

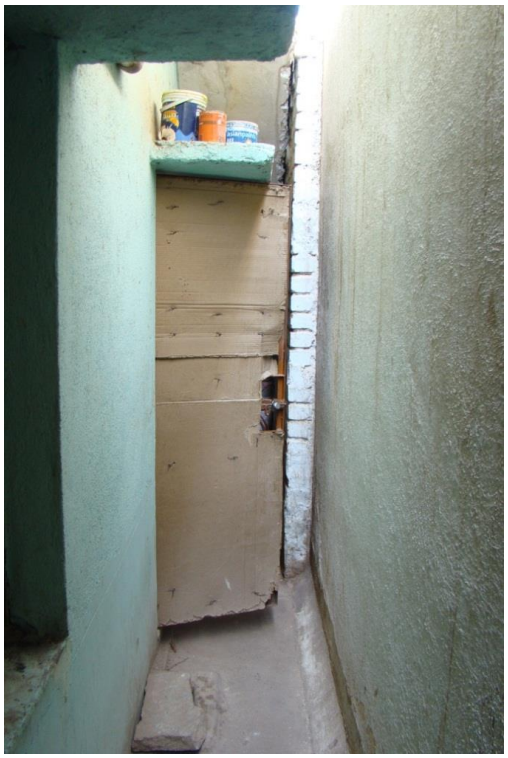


Fig. 3 S1 - Toilet door

School 2 (S2)

Toilet Report Card

Toilet Facility	**Grade**
Door	A
Lock	E
Enclosure	A
Cleanliness	E
Ventilation	A
Water Supply	E

Overall Grade: C (Poor)

Fig. 4 S2 - Toilets

Fig. 5 S2 - Toilets

Fig. 6 S2 - Ventilation

Schools with higher grades

School 3 (S3)

Toilet Report Card

Toilet Facility	Grade
Door	A
Lock	A
Enclosure	A
Cleanliness	B
Ventilation	A
Water Supply	A

Overall Grade: A (Excellent)

Fig. 7 S3 - Toilet

School 4 (S4)

Toilet Report Card

Toilet Facility	Grade
Door	A
Lock	A
Enclosure	A
Cleanliness	A
Ventilation	A
Water Supply	A

Overall Grade: A (Excellent)

Fig. 8 S4 - Toilets

Appendix C: Quantitative Section of Sample DISE School Report Card

Change Language - Hindi, Marathi, Kannada, Malayalam, Tamil, Telugu, Gujarati, Punjabi

Click to print this page

Click Here to see **Detailed Report**

SCHOOL REPORT CARD:2009-10*

State KARNATAKA
District Name BANGALORE SOUTH
School Code 29200108180
School Name GUHPS ILEAS NAGAR
Block Name SOUTH1
Cluster Name UTARA HALLI
Village Name UTTARA HALLI
Name of Head Master

2008-09

General Information(PINCODE:560078)

Rural / Urban	Urban	Distance from Block HQ (Km.)	5	Distance From CRC (Km.)	2
Year of Establishment	1985	Pre-primary Section	Yes	Residential School	No
Management	Dept. of Education	Lowest Class in school	1	Highest class in school	7
School Category	P. with U.Primary	Total Students (Pre-primary)	0	**School Funds (In Rs.)**	**Recd.** / **Expd.**
Type of School	Co-Educational	Shift School	No	TLM fund	4500 / 4500
Days School Functioned	236	Academic Inspections	6	School Development Fund	12000 / 12000
Type of Residential School	Not Applicable	Total Teachers (Pre-primary)	1	Collection from Students	0 / 0
No. of Visits by CRC Coordinator	10	No. of Visits by BRC Coordinator	2		

Staff Category (Primary & Upper Primary only)

Teaching Staff sanctioned	10	Teacher(s) Male	2
Teaching Staff in position	9	Teacher(s) Female	7
Para Teachers	0	Non-teaching Staff	0
Working Days Spent on Non-teaching assignments	0	Graduate & Above	0
# of Teachers Involved in non-teaching assignments	0	Head Master/Head Teacher	No
Avg. working days spent on non-teaching assignments	0	Teachers with professional Qualification	9

Medium of Instructions	Medium 1	Urdu	Medium 2		Medium 3	

School Building, Equipment & Facilities

Number of Building Blocks	Pucca 7	Partially Pucca	0	Kuccha 0	Tent	0	
Classrooms Require Major Repairs	1	# of Classrooms for Teaching	7	Number of Other Rooms		0	
Status of School Building	Private	Common Toilet	Yes	Number of Blackboard		1	
# of Classrooms in Good Condition	4	Girls Toilet	Yes	Electricity in School		Yes	
Classrooms Require Minor Repairs	2	Book-Bank	Yes	Playground		Yes	
Medical check-up of Students	Yes	# of Computers Available	0	Drinking Water Facility		Handpump	
Blackboard at Ground Level	8	Ramps for Disabled Children	No	Kitchen Shed		No	
# of Books in School Library	307	Boundary Wall	Pucca	Boys toilet		Yes	
Furniture for Students	No	Furniture for Teachers	No	Separate Room for HM		No	
Computer Aided Learning Lab	No	Kitchen Devices Grant	Received	Status of Mid-day Meal		Not Provided	

Enrolment & Repeaters

Enrolment	Total Enrolment			SC Enrolment		ST Enrolment		OBC Enrolment		Repeaters		CWSN	Muslim Enrolment	
Grade	All	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls		Boys	Girls
I	26	15	11	0	0	0	0	15	11	0	0	0	0	0
II	15	8	7	0	0	0	0	8	7	0	0	0	0	0
III	10	6	4	0	0	0	0	6	4	0	0	0	0	0
IV	4	2	2	0	0	0	0	2	2	0	0	0	0	0
V	5	2	3	0	0	0	0	2	3	0	0	3	0	0
VI	5	2	3	0	0	0	0	2	3	0	0	0	0	0
VII	4	1	3	0	0	0	0	1	3	0	0	0	0	0
VIII	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	69	36	33	0	0	0	0	36	33	0	0	3	0	0

Incentive (Previous Academic Year) Primary Only

	General		SC Students		ST students		OBC students	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Text Books	0	0	0	0	0	0	0	0
Stationary	0	0	0	0	0	0	0	0
Uniform	0	0	0	0	0	0	0	0
Scholarship	0	0	0	0	0	0	0	0

Examination Results (Prev. Academic Session)

	Grade IV/V		Grade VII/VIII	
	Boys	Girls	Boys	Girls
Students Enrolled	0	0	0	0
Students Appeared	0	0	0	0
Students Passed	0	0	0	0
Passed with ≥ 60%	0	0	0	0

Key Indicators

Pupil : Teacher Ratio	8	Student : Classroom Ratio	10	% Classrooms Require Major Repairs	14.29
% SC Students	0.00	% Repeaters to Total Enrolment	0.00	% Teachers with Prof. Qualification	100.00
% ST Students	0.00	% ST Girls to ST Enrolment	0.00	% SC Girls to SC Enrolment	0.00
%Muslim Students	0.00	% Muslim Girls to Muslim Enrolment	0.00	% OBC Enrolment	100.00
% Girls	47.83	% Students Passed	0.00	% Students Passed with ≥ 60%	0.00

*As on 30th September 2009

Appendix D: Qualitative Section of Sample DISE School Report Card

Descriptive School Report

School Code : 29200108180	
Name of School: GUHPS ILEAS NAGAR	**Village:** UTTARA HALLI
Block: SOUTH1	**Cluster:** UTARA HALLI
District: BANGALORE SOUTH	**State:** KARNATAKA

Date of Reference

This report is automatically generated by computer based on the data provided by the school as on **September 30, 2009.**

School Background

The school was established in 1985 and it is managed by the Department of Education. It is located in urban area. It is situated at a distance of about 5 km. from the Block HQ. It is located in SOUTH1 block of BANGALORE SOUTH district of KARNATAKA. The school consists of Grades from 1 to 7. The school is co-educational and it has an attached pre-primary section. It has got one teacher for pre-primary section. The school is non-residential in nature and is not using school building as a shift-school. During the previous academic year, the school functioned for 236 days. It had 6 academic inspections and was 10 times visited by the CRC Coordinator during the previous academic year. It was 2 times visited by the BRC Coordinator. Urdu is the medium of instructions in this school.

Facilities in School

The school has 7 building blocks which are housed in a Private building. It has got 7 classrooms for instructional purposes. A total of 4 classrooms are in good condition. On the other hand, one of the classroom(s) need major repairs. It has no other room for non-teaching activities. The school does not have a seperate room for Head master/Teacher.

The school has got *pucca* boundary wall. The school has electricity connection. The source of Drinking Water in the school is *Hand Pump*. The school has a common toilet and also has separate toilet for boys and girls The school has a playground. The school has a book-bank and has 307 books in its library. The school arranged medical check-up for its students during the previous academic year. It has no ramp for the disabled children. The school has got only one blackboard for the use of teachers and 8 blackboards at the ground level for the use of children. The school does not have a computer. The school is not having a computer aided learning lab. The school has received the one time Kitchen Devices Grant. The school is not providing Mid-day meal.

Teachers

The school does not have a regular Head Master/Teacher. The school has 9 regular teachers in position against a sanctioned strength of 10 posts. The school has 7 female teachers. It has no *Para*-Teacher. The school does not have non-teaching staff. No teacher of school is having graduate and above degrees. On the other hand, all teachers have professional certification(s)/degree(s). The Pupil-Teacher Ratio (PTR) of the

school is 8:1 and the Student-Classroom Ratio (SCR), 10:1. On an average, about 10 students sit in one classroom which sounds comfortable.

During the previous academic year, no teacher was engaged for even a single day in non-teaching assignments.

Funds and Grants

Under the Sarva Shiksha Abhiyan Programme, the school received a sum of Rs.12000/- and Rs.4500/- on account of School Development and TLM Grants respectively. It has utilized 100 per cent School Development and TLM Grants. The school did not collect any funds from students during the previous academic year.

Enrolment

The total enrolment of school is 69, out of which boys' enrolment is 36 (52.2 per cent) and girls' enrolment, 33 (47.8 per cent). The SC enrolment is 0, ST enrolment, zero and OBC enrolment, 69 (100.0 per cent). No student repeated elementary grades during the previous academic year. The school has 3 disabled children.

Incentives to Students

Incentives were not provided to students in the previous academic session.

Major Strengths & Weakness

Strengths

- The school has a boundary wall.
- The teachers are professionally qualified.
- The school was inspected during the previous academic year.
- The school was visited by the CRC Coordinator during the previous academic year.
- There are female teachers in the school.
- The school has got girls' toilet.
- The school has a comfortable Pupil-Teacher Ratio (PTR).

Weakness

- The school is not providing Mid-day meal.
- The school does not have a computer aided learning lab.
- The school does not have regular Head Master/Teacher.
- The school does not have a separate room for Head Master/Teacher.
- The school does not have a ramp for disabled children.