

TOILET CLEANLINESS IN RGS

RAFFLES GIRLS' SCHOOL (SECONDARY)

By: Jun Shin Jung (10)
Kam Ning Hui (11)
Li Kun Man (15)
Sophie Tan Su Fei (29)

Class: 206

Mentor: Miss Julie Koh

Date of Submission: 29 July 2003

Acknowledgements

We would like to thank first and foremost our dearest mentor – Miss Julie Koh for mentoring us through this project and for being a friend when we talk about things not related to PPL. She has been attentive to the difficulties we encountered and given us a lot of valuable advice as to how to start on and continue on, when we are ‘stuck’ on our project. She posted us questions for us to reflect on, to allow us to see things from different perspectives. She is always approachable and is very patient with us.

Next, we wish to express our gratitude to Mr Ang Hup Hee, the school’s estate manager and the ‘Soon Kiat’ cleaners (green man) for giving us their time for an interview. They were very obliging in giving us accurate and detailed answers to our questions, and for keeping the school a clean and pleasant environment for our benefit.

Our heartfelt gratitude also goes to Mr. Jack Sim, President of Restroom Association (Singapore), who so willingly agreed to our request for an interview. He provided us with solutions and answers to our questions, which were very helpful to our project. We really appreciated it.

Our special thanks goes out to our principal Mrs. Deborah Tan for granting us the interview and helping us to refine our problems as well as solutions.

Last but not least, the librarian, Mr. Chan for teaching us the correct way to write bibliographies for our PPL project.

Abstract

Problem Statement

Diseases can be spread through users in public toilets. Many students and staff are using the school toilets daily and it is important to keep them hygienic and sanitary. Clean school toilets reflect well upon a school's hygiene standards and the proper upbringing of its students. Despite having school cleaners to clean our school toilets, many students are still unhappy with the cleanliness of the toilets.

Hypothesis

Dirty toilets in RGS are caused by the negligence of students who use the toilets improperly. For example, not flushing the toilets and throwing used toilet paper on the ground. They do not treat the toilets with respect and think that since the school toilets are not their personal toilet they do not have the responsibility to keep it clean. Another reason is that the facilities of RGS toilets (E.g. hand soap, toilet flushes) are either not readily available or faulty, resulting in unhygienic conditions.

Contents

Acknowledgements	iii
Abstract	iv
Contents	v
1. Introduction	1
1.1 Rationale for study.....	1
1.2 Objectives for study.....	1
1.3 Problem statement.....	2
1.4 Research questions.....	2
2. Literature Review	3
2.1 History of toilets.....	3
2.2 Importance of toilets.....	3
2.3 Basic facilities.....	4
2.3.1 A well-designed toilet.....	4
2.3.2 Cleanliness of Toilets and how Psychology influences it.....	4
2.4 Past studies/projects.....	5
2.4.1 Issues not addressed in past studies/projects.....	5
3. Methodology	6
3.1 Procedures.....	6
3.1.1 Surveys with the student population.....	6
3.1.2 Interviews	
3.1.2.1 Interview with President of RAS Mr. Jack Sim.....	7
3.1.2.2 Interview with RGS Estate Manager, Mr. Ang Hup Hee.....	7
3.1.2.3 Interview with Principal of RGS, Mrs. Deborah Tan.....	7
3.2 Problems faced.....	8
4. Results and Discussions	9
4.1 Analysis of results.....	9

4.2 Suggested Solutions.....	10
5. Conclusion.....	11
5.1 Summary of results.....	11
5.2 Limitations of present study.....	12
5.3 Recommendations for future studies.....	12
6. Bibliography.....	13
Appendix.....	14
Appendix A: Transcript of interview with Mr. Ang Hup Hee.....	14
Appendix B: Transcript of interview with Mr. Jack Sim.....	15
Appendix C: Transcript of interview with Mrs. Deborah Tan.....	17
Appendix D: A copy of the request for an interview with Mrs. Tan.....	19
Appendix E: Survey questionnaire for RGS students.....	21
Appendix F: Detailed results of survey.....	24
Appendix G: Newspaper clippings.....	28
Appendix H: Routine check list.....	30
Appendix I: Detailed results of routine checks.....	32

1. Introduction

1.1 Rationale for Study

At the beginning of the year, when we were brainstorming for a project to work on, the government had announced over the media that they are planning to invest money and time to raise awareness of public hygiene through public toilets in coffee shops and shopping centres. They also announced that they would be renovating and grading public toilets using the British system soon.

In our school, many people often complain that our school toilets are not clean enough and that the ‘green men’ (school cleaners) are not doing a good job in keeping the toilets clean. From the students’ point of view, the cleaners are the ones who are even more responsible than the users themselves for the state of cleanliness in a toilet. However, our group agrees that the cleanliness of the toilets are the responsibilities of both the cleaners and users. Therefore, we decided to work on this problem, and have it openly discussed and improved upon, together.

One must agree that toilets are part of our lives. Good personal hygiene habits reflect one’s upbringing. Toilets also reflect the hygiene standards of a school. It is also a serious matter of health, where germs can be spread through the toilets.

1.2 Objectives of Study

Through this project, we hope to achieve a higher standard of hygiene in RGS. As Arnie Wilke, (2003), has suggested, “To create a healthier and safer environment, the first step is in the washroom.” By further researching on this social topic, we hope to find out the factors that cause the dirty students toilets and from there, derive solutions to upkeep the school toilets clean, through involving and educating both students and cleaners, so as to achieve a higher standard of cleanliness and hygiene in RGS.

We also hope that each pupil will learn to have a sense of belonging to the school – treating the school toilets as their own. Also, to change the pupils’ character for the better – whether they are selfish; dirtying the toilets thus causing inconvenience for other users

and also inculcate in them a sense of responsibility and initiative – for students to do what they should when using toilets and have initiative to report any fault in the sinks or flushes to the general office or the estate manager so as to ensure that the toilets are in their best condition.

1.3 Problem Statement

Diseases can be spread through users in public toilets. Many students and staff are using the school toilets daily and it is important to keep them hygienic and sanitary. Clean school toilets reflect well upon a school's hygiene standards and the proper upbringing of its students. Despite having school cleaners to clean our school toilets, many students are still unhappy with the cleanliness of the toilets.

1.4 Research Questions

- What is the definition of a well-designed public toilet?
- How can we have toilets that have better public design and maintenance?
- Is our school toilet well designed?
- What are some of the new technologies in toilet cleaning?
- What is considered good toilet cleaning procedures?

2. Literature Review

2.1 History of Toilets

There are many types of toilets; home toilets, public toilets, school toilets, office toilets etc. These are just some of the main types of toilets. During the Indus Civilization, there were already sewage systems underground, according to archaeologists. Drains, toilets from the houses were connected to sewers under the main street. They also had special openings for workmen to inspect the drains regularly and whenever sewage problems occur. This goes to show the long history of toilets.

However, toilets today are a lot better designed and planned. That was also a gradual change with technology. Long ago in China, people used to dig holes in the ground in which they placed pails, which they use as toilets. This was an inconvenient and unhygienic way. People soon looked into the design of toilets and improved them.

However, with the SARS outbreak, it has been discovered by scientist that diseases can be spread through these humans use everyday, like toilets. It is important to realise the importance of toilets.

2.2 Importance of Toilets

One cannot deny that toilets are an important part of living. After what is consumed is digested, nutrients in it are absorbed. Substances that are not need or are harmful to the body are passed out. These wastes are harmful and poisonous and can be used as agents in disease spreading. It is thus important to dispose well of these wastes so that they do not pose a threat to human health. The area to work on this would be the toilet.

Quoting from Mr Jack Sim, “If you got to go, you got to go. If you got to go but you don’t, it may result in diseases such as the kidney disease and bladder inflammation.”

Toilets are visited by users to wash their hands or to check their appearances in the bathroom mirror. It is important that the toilet is maintained well with a high standard of hygiene so that germs are not easily spread. Toilets are places where it is damp. Good design will allow minimal contact of surfaces of toilet facilities and reduce chances of germs spreading through toilet usage.

2.3 Basic Facilities

The basic facilities of toilets are generally similar although some types of toilets would require special facilities to cater to their special category of users e.g. toilets for the disabled or wheel- chair- bound would need bars on the walls of the cubicles to convenience users. Generally, every kind of toilet would need sinks, bins, hand-drying equipment etc. besides the cubicles.

2.3.1 A Well-designed Toilet

A well-designed toilet would need to have sinks that are of suitable depth, with respect to the strength of flow of the water through the tap so that splashing is minimized. Also, hand-drying equipment should be nearby so as to minimize having the floor wet from water dripping off the hands on the way to hand-dry. Hand-drying equipment like napkins or hand dryers should be functioning at all times. Soap is important and the soap dispensers must be filled so that users can get rid of bacteria on their hands while washing them.

2.3.2 Cleanliness of Toilets and how Psychology influences it

Quoting from our Survey 1 answers, some students have indicated “ if the toilets are dirty, I will try to keep myself clean”. This shows that users will try to get out of the toilet as soon as possible, not flushing the toilet and flinging the water from their washed hands onto the ground and not using the hand-dryer or tissue provided because of the stench or wetness of the toilet. As Mr. Jack Sim (The president of RAS) has said “ when you make the environment (of the toilet) more pleasant, that will definitely boost their (the occupants) morale.” Basically, if the toilet is clean, students users will be encouraged to keep it that way. The same applies vice versa.

2.4 Past Studies/ Projects

A group of Secondary One Gifted Education Programme (GEP) girls in 2002 have done a project on the Cleanliness of Toilets. However, what they did was only to add plants inside of the cubicles. Some of these plants were over watered or not watered at all, resulting in their turning yellow and drying up. Their solution was not successful as most of the plants had to be thrown away due to their unsightly appearance. They also made use of the announcement time during assembly to tell the school about their project and their intended plans to solve this problem in RGS.

2.4.1 Issues not addressed in Past Studies/ Projects

Although the GEP girls had identified a solution to solve the problem of the physical appearance of the toilets, they have not identified that the facilities and arrangement of them was also an important factor. They did not water the plants or sun them so that they will grow well; hence it wasn't a realistic solution.

3. Methodology

3.1 Procedures

The first step of the process was to do some research on public toilets like their facilities to start off. Studying case studies of public and home toilets and past public toilet survey results was also essential. Next, routine checks to understand the conditions of RGS toilet was conducted over a month in a difference of a fortnight. A survey was then conducted to find out the feedback of the student population. After conducting the survey, interviews with professionals in fields related to the project were carried out. Another survey is then given out to the student population once again. Investigations were carried out to analyse the factors that contribute to the survey results. Solutions were the derived and plans are made to carry them out.

3.1.1 Surveys with the student population

Two questionnaire surveys, before and after the SARS outbreak period, were conducted with the Secondary 1 to 4 RGS students to find out how the school population felt about the general hygiene of the student toilets and to find out how to go about improving the present standard of hygiene and what possible solutions could be found. For the survey before the SARS period, of the 270 questionnaires given out, 108 were returned and for the second survey, of the 270 surveys given out, 97 were returned.

3.1.2 Interviews

3.1.2.1 Interview with President of RAS Mr. Jack Sim

A face-to-face interview was conducted with Mr. Jack Sim, the President of the Restroom Association Singapore (RAS) to gather solutions on how to improve our

school's toilets and raise their standards. Besides a 'sit-down interview' with Mr. Jack Sim, a tour was made to show him the realistic conditions of the school's toilets. He then suggested many constructive solutions, including renovating the whole toilet to improve its maintenance level.

3.1.2.2 Interview with RGS Estate Manager, Mr. Ang Hup Hee

A short question and answer interview was conducted with Mr. Ang Hup Hee, the RGS Estate manager. He is able to provide us the detailed work schedule and expenses (cleaning cost, water bills and maintenance fees) of keeping the school toilets clean. By gathering all these information, the efforts made by the school to keep the toilets clean are transparent.

3.1.2.3 Interview with RGS Principal, Mrs. Deborah Tan

A half an hour interview was conducted with Mrs. Deborah Tan, the principal of RGS. The main purpose of the interview was to suggest putting the solutions into action like the adopt-a-toilet scheme. Discussion on whether cleaning the toilet as a form of punishment for DC and the request of giving an assembly talk was also an objective of the interview. Much help was achieved in the process, both in terms of refining the problem as well as the solutions.

3.2 Problems faced

- From the very beginning we had a hard time trying to phrase our problem statement to make it sensible and realistic. It took us about two to three weeks to do final amendments before settling down with our final product. Hence, there was wastage of time.
- All of us have different after school activities, thus not being able to meet up at a specific time every week besides our PPL session with our mentor every Tuesday afternoon. Therefore we have to make good use out of our PPL sessions to discuss the important details and difficulties, work distribution for the week and make

sure we completed the assigned tasks on time so as to move on with other parts of the project. We also try as much as possible to meet up during our holidays to finish whatever is left.

- When we handed out our first surveys, we did not have prompt and adequate returns. Out of 270 surveys, only 108 were returned, meaning that we did not even have half of the surveys back. Thus we were quite disappointed. Another problem was that students did not like or did not bother to answer certain questions, e.g. open ended questions, questions that require thinking, etc.
- We had different perspectives on things, thus there were quite a few disagreements as to how we are doing to do the task. The work distribution in doing this project was also not quite even as some had to do more than the others and some responded quicker than others. The people we invited for interviews were quite slow in replying. And we had to wait quite long to fix the dates. Thus this took us quite some time.
- Due to the SARS outbreak and unpredictable circumstances, we had to make last minute amendments, and routine checks were disrupted. We were quite taken aback by all the unforeseen situations.

4. Results and Discussion

4.1 Analysis of results

Results show that the toilets are relatively cleaner in the post-sars period as the cleaners clean it more often and that even though the students visit the toilets more often. This is probably due to the fact that the students are more aware of hygiene and what would happen if they are unhygienic and throw their trash all over the place. Two more female cleaners are being employed after the school had been re-opened after the closure of schools due to SARS. They go around the school with a trolley supplied with cleaning agents three cycles a day from 7.30 a.m. to 4.30 p.m.

The students rate the physical environment and the facilities of the school fairly average. The hand soap in the dispenser is often not constantly being filled; it is only after the SARS period that the soap is available. However, nowadays the dispenser is still very much empty. The lids of the refuse bins are also missing, reason being it would be easier for the students as they do not have to touch the lids when throwing their waste away, but then again, the bacteria contained in the refuse bins would be spread easily than before, and this might lead to the breeding of harmful diseases.

The E block toilets in the school are also dirtier than those in the D block. This is probably due to the flowing system used by the lower secondary students, as they move around between blocks to get to their next classroom, thus the higher usage of the toilets there. The sinks of those toilets near to the art room are stained with paint, as students during their art lessons do not only use the sinks in the art room to wash their materials but also the toilets nearby.

The environment of the toilets affects its users in one way or another. For example, if a user step into a dirty toilet, he or she would just either walk away or relieve him or herself as quickly as possible and move out of the toilet immediately. Even if he or she dropped a piece of tissue on the way out, he or she would not bother to pick it up. Vice versa, if a user step into a clean and hygienic toilet, he or she would treat the toilet with care and caution so as no to dirty it.

The cleaners and the toilets users, in this case the students have their own part to play in keeping the toilets clean and hygienic.

4.2 Suggested Solutions

One of the suggested solutions by Mr. Jack Sim is that bins can be provided for sanitary bins in the school toilets. This is to prevent bacteria from getting into the air through evaporation especially so if toilet users have not wrapped the sanitary pad with tissue paper before disposal. It would also be unsightly and cause the physical appearance of the toilet to be unpleasant to users.

Another common problem of RGS students' toilets are the wet floors of toilets. The water on the floor will cause footmarks to form when users step over them in their shoes. In such wet conditions, bacteria growth will be encouraged. In terms of safety, girls might slip and fall if they are not careful. It is suggested that faulty flushes that are leaky are causing the floors of toilet cubicles to be wet. Shallow sinks and lack of hand-drying facilities that are near sink area are also a possible cause.

Shallow sinks can cause the toilet's sink area to be wet as they allow water to be splashed out of the sink easily. Taps that produce powerful jets of water can also cause the water to be easily splashed out onto the sink area. Users not using the sink facilities properly is also a factor to be considered. If a user places her hand too near to the mouth of the tap, water can be splashed out onto the user and the sink area.

However, from investigation, there is a lack of hand-drying facilities near sink areas in every toilet in RGS e.g. electrical hand-dryers and tissue dispensers. Although such equipments are present in all toilets, they are either too far away from the sink area or in the way of a major traffic route. Hand-dryers are placed too near to the doors and obstructs traffic. Because of this reason, users do not want to walk too far or block entering users to dry their hands. Many then either wipe the water off their hands onto their clothes or swing off the water onto the toilet floor, resulting in wet toilet floors. From a health point of view, wiping the water onto your hands is not hygienic and will cause the hands to be dirtied again by the bacteria on one's clothes.

To aid in solving this problem, exhaust fans can be installed so that evaporation will take place at a faster rate, allowing the toilet to be kept dryer. From a health point of view,

bacteria in toilets will be able to multiply at a high rate because of the damp and warm surroundings.

5.1 Summary of Results

Results have shown that the wetness of the toilets, the lack of litter bins and refuse lids and the lack of ownership in toilets contribute most to the problem of hygiene and dirtiness of the school toilets in RGS.

The wetness of toilets affect the cleanliness of toilets as when the sink tops and ground is wet, and more users step into the toilets with dirty shoes and hands, the toilets get dirtier even though it might have been cleaned earlier before. Germs might also multiply as the wet and stagnant toilets provide a relative breeding ground for them to reproduce, thus causing the spread of diseases as more users enter the toilets.

The lack of bins and lids can also result in the multiplication of diseases as the users throw their trash into the bins. Bacteria can be spread around if there is no cover and some students do not bother to wrap them with tissue paper before disposing.

The lack of ownership in toilets mainly due to the mindsets of students nowadays as the students do not regard shared property as their own personal property. 'If this is shared by everybody then why should I bother to treat it as my own and keep it clean?' Students do not treat the school toilets properly like they treat their own at home. This can be seen where by the students do not bother to throw their waste in the bins provided and keep the floor as dry as possible as they do at home. Negligence in this aspect piles up as the toilets get dirtier.

Our school also lacks well-designed toilets, which play as a factor in a toilet, which is up to grading standard. However, a large amount of money has to be available as this involves the rebuilding of the toilets in RGS.

5.2 Limitations of present study

There is a limit to what we students can do for our environment, in this case, the toilets. We need to have the capital and authority to make changes to the toilets to ‘upgrade’ them to five-star toilets. As students, we can only advise the management of the toilets to ‘upgrade’ their toilets to a cleaner and more hygienic state.

There is a ‘Restroom Association of Singapore’ which targets toilets for a better Singapore. The ‘World Toilet Organization’ also organizes different programmes for toilets. Besides the new ‘Happy Toilet’ campaign launched recently provides a guide to the clean and pleasant toilets with their three, four and five stars’ system.

5.3 Recommendations For Future Studies

If in future there is the financial ability to renovate the school toilet such that all facilities are in good condition at the right place and are all user-friendly, it is highly recommended that the toilets be revamped, as they are not up to standard. However, keeping the school toilets clean definitely depends more on the students themselves. On the educational level, perhaps a lesson on toilet courtesy can be conducted through classes like ACE.

Bibliography

Tan, S. (2003.). He spends \$150,000 on toilets and 5 hours a day in the loo. [Electronic Version]. The New Paper.

Interview with RGS Estate Manager, Mr Ang Hup Hee

Held on May 20, 2003 @ the General Office

Questions:

1. Who are the people in charge of cleaning the student toilets?

There are 4 Soon Kiats residing in the school who cleans the school toilets after school everyday. However, after the SARS closure, two more female cleaners have been employed whose working schedule defers from the Soon Kiats. These two women go around the school with a trolley supplied with cleaning agents three cycles a day from 7.30 a.m. to 4.30 a.m.

2. Do you check on the toilets?

Yes, to make sure that the toilets are clean for use. (due to SARS)

3. Who is their supervisor?

The supervisor is one of the four Soon Kiats who goes around cleaning the school.

4. Cleaning cost?

Dettol ----- \$400/mth

Chlorine-----\$200/mth

Total added(inclusive of workers' pay): extra \$1500/mth

5. Bills?

Though cleaning costs and water bills might go up, the total maintenance fees would actually decrease as the electricity bills are much lower than before, due to the lesser usage of air-conditioners in the school environment.

Interview with the President of Restroom Association in Singapore, Mr Jack Sim

Held on July 3, 2003 @ the library

Questions:

1. What made you form the Restroom Association of Singapore?

Doing something important was always my dream. I first started the Restroom Association because I felt that some toilets are very dirty and unhygienic. I wanted to serve in this area because although toilet cleanliness is a big part of our lives, people tend to ignore it because it is rather a sensitive issue. I am a businessman dealing with architecture, construction and real estate etc. I feel that business is a little boring, and vicious at times. I wanted to do something great for humankind before leaving the world one day. I currently work 5 hours a day on the Restroom Association, as community service. No matter how much I try, I can never earn enough money to be the richest or be the poorest. Thus I decided to set up a non-profit organization for the cleanliness of Singapore toilets. In a developed country like ours, it is important to have good facilities and settings, like clean toilets. When I first told the people about the setting up of the organization, they laughed at me and did not take me seriously at all. However, after a thorough explanation, they realized that I was serious, and they realized the importance of clean and hygienic toilets. Not only does the clean toilets set the image in tourism, it also prevents spread of germs. His inspiration to not be set aback by mockery was inspired by the “Mr. Condom” of Thailand, which he once had conducted an interview with.

2. What do you think of RGS toilets and how would you rate them?

I think RGS toilets are not ready to be graded yet. Well if I rate them, I cannot rate them as first class, but it is a happy toilet, meaning that we can give it a three star rating.

3. What improvements do you think we can make in RGS toilets?

The sanitary bins must have covers because bacteria can be spread around if there is no cover and some girls have not bothered to wrap them with tissue paper before disposing. I think the wetness of the floor has something to do with the flushes that are faulty. The sink area is wet most probably because the basin (sink) is too shallow, too small, thus resulting in splashing of water. The toilets are not well ventilated and RGS might consider purchasing some ventilators for the toilets so as to aid in quick evaporation, and they are very cheap. Keeping the toilets clean is important because bacteria and germs can reproduce very well in damp and warm places. The toilets should have the tissue papers and hand dryers nearer to the sink area so that it is convenient to the users. You also can have a platform at the sink area so that the mirrors are less likely to be splashed wet. The dirty footprints on the floor are the result of a wet floor.

Interview with Principal of RGS, Mrs. Deborah Tan

Held on July 24, 2003 @ the Principal's Office

Questions:

Four of us: If you start from the sink, there is paint in the sink of the toilets near the art room.

Mrs. Tan: Does the art room have a sink? Maybe there is a solution to that.

We interviewed Mr. Jack Sim, the President of the Restroom Association of Singapore, and he told us that our school toilets are 'Singapore's OK standard', but definitely not ready for ratings.

Mr. Sim has certain standards, so what I'm trying to say is that the students taking your survey have certain benchmarks (of their own), so your survey results may be somewhat inaccurate. You all should set certain standards for the girls to have a common reference. My question is when you make these recommendations, what problems are they pertaining to?

Firstly it is the wet floor, as they can be good breeding place for germs, and it is not safe. One of our purposes is to educate the students on how to keep the toilets clean, for example when they wash their hands do not splash the water all over. Regarding our adopt-a-toilet plan, we thought that maybe when the students are assigned a toilet, they will feel responsible for it and keep it clean.

So wetness is one problem and the lack of ownership is another problem.

Yes, and also each time we go to the toilet we see litter, and we did our routine checks, and there are statistics to prove.

What is the frequency?

We would say it is one in ten cubicles. It is more frequent in the E block toilets as there are only two cubicles in each toilet and there is more traffic. Basically they are used tissues.

The wetness of the sink is probably due to the shallowness of the sink, so when you press the tap, the water will splash out, also, the hand-dryer is too far away from the sink.

I see you have done some economics. You are planning to solve the problem by giving one toilet per class, and most probably the sec ones will participate because the D block toilets are generally cleaner.

So how do you intend to assign the toilets?

Yes, we've discussed about that among ourselves, and we've decided that we should do it randomly, or perhaps we can assign the classes to the toilet nearer to their lockers so that it is more convenient.

We are also suggesting making it a choice as community service. They can decorate the toilet, do group service and keep checks on the facilities.

You should have a flowchart. Assuming you have a class and you list down the problems like wet floor, and give them S.O.Ps (Standard Operation Procedures), because if you leave it to the class they won't understand the problem you have, so you need to identify what are the specific problems.

How do you evaluate if the class is taking ownership?

We will have a list of classes and their assigned toilets, and probably once in a while we will do a routine check. At the end of the year we can also have a "Best Management Class" award to reward them.

There is this manner where we discharge the water and it splashes, but there maybe a more inherent problem.

We try to use more cost-effective solutions to solve our problems.

Have you considered that even if is cheap, the effort to maintain is very tremendous.

Mr. Jack Sim suggested to us before to renovate the toilets, however his renovation plan was not feasible based on our financial means right now.

As for cleaning toilets as a DC punishment, we are trying to say that if students have a mindset that cleaning the toilet is a DC chore, they will not take pride in keeping clean on a normal day.

I personally have no objection to toilet cleaning as a DC punishment. In the army they also do it, and as a result of NS training, men are more careful using the toilets, as they know how hard it is to clean and maintain the toilets.

I think an educational video would be effective in educating the students, but it must be authentic and original.

In our surveys, some students wrote "since it is not my toilet, why should I clean it", and we think that it is a very honest statement.

So the way to educate them is to make them understand that common property is also everyone's property, and to me it is also a question of character. Some of them are egocentric and only take care of what is their space.

One student wrote in our survey “if the toilet is dirty I would make sure I don’t get dirtied by it.”

If I can use my generation to compare, we had two sessions in RGS and there were fewer toilets, but it is always clean and dry.

Can I suggest to you all to do your flowchart for the ownership of toilets, and recommend standards for cleaning for DC.

Appendix D: A copy of a request for an interview with Mrs. Tan

12 July 2003

To: Raffles Girls' School (Secondary)

From: Jun Shin Jung, Kam Ning Hui, Li Kun Man, Sophie Tan
Secondary 206
PPL group on Toilet Cleanliness in RGS
PPL mentor: Miss Julie Koh

Dear Mrs. Tan

Re: Request for Interview

We are a group of students working on the topic "Toilet Cleanliness in RGS" as our PPL project. As part of our project solutions, we would like to propose some possible solutions that might improve the toilets in RGS.

According to our previous surveys, we found that a large percentage of the student population have been complaining that our school toilets are dirty. Our group feels that toilet cleanliness, be it a public washroom, or a personal washroom, is important due to the simple fact that we use the washroom often, and it is part of our lives. We feel that two groups of people are responsible for the cleanliness of toilets: the cleaners, and the users. Although the school cleaners clean the toilets more than thrice a day, students still feel that the toilets are not clean enough and we believe that this is due to the mindset of pupils towards the toilets. We strongly feel, together with Mr. Jack Sim, the president of Restroom Association in Singapore and also one of the founding members of the World Toilet Organization, whom we interviewed, that changing the mindset of the pupils is the most basic yet effective way to solve this problem. Attached on the next page are some of the solutions we have come up with and we really hope to discuss them with you in person.

Could we propose the following for the interview? (Please refer to attached)

Date: 24th July 2003

Time: 3pm

Venue: Wherever comfortable

We look forward to hearing from you. Thank you very much for your time and cooperation. With best wishes.

Yours sincerely

Li Kun Man
Sec 2/6
(c.c Miss Julie Koh)

1. Adopt-A-Toilet Scheme

- 1 toilet per class
- Most probably the lower secondary classes would take part
- Upper secondary classes would be optional (due to their tight schedule)
- Yearly award for the “Best Management Class
(Not “Cleanest Toilet Award” because we would like the pupils to feel a sense of responsibility of their assigned toilets, and thus feel proud to receive the award. It is another simple way of changing pupils’ mindset.)
- Pupils can decorate, clean, put up art pieces etc.
- Creativity
- Labeling on doors: “the toilet is under Class ____’s management” or “this toilet is taken care by ____”

2. Toilet cleaning as DC

- Is it appropriate? Effective?

3. Education

- Assembly talk on cleanliness and hygiene matters of toilets
- Hygiene
- Proper usage of toilets (toilet courtesy)
- Upcoming programmes (publicity)

4. Other Issues

- What other ways can we improve the cleanliness of toilets?

Appendix E: Survey Questionnaire 1

Name (optional): _____ Class: _____

Level: Sec 1 / 2 / 3 / 4

Tick one:

Floating

Non-Floating Specific Homeroom: _____

1. Approximately how many times do you use the toilets a day?

- a. 0 to 2 times (64.8%)
- b. 2 to 4 times (18.5%)
- c. 4 to 6 times (10.2%)
- d. 6 or more times (6.5%) ()

2. Do you flush after use?

- a. Always (95.4%)
- b. Often (3.7%)
- c. Sometimes (0%)
- d. Never (0.9%) ()

3. Rate the **physical environment** of the toilets on a scale of 1 to 4 below.

- | | | | | |
|-----------|-----------|-----------|-----------|-----|
| 1 (5.6%) | 2 (28.7%) | 3 (50.9%) | 4 (14.8%) | |
| Very good | | | Very bad | () |

4. Rate the **facilities** (toilet flushes, rubbish bins etc.) of the toilets on a scale of 1 to 4 below.

- | | | | | |
|------------|-----------|-----------|--------------|-----|
| 1 (8.3%) | 2 (51.9%) | 3 (32.4%) | 4 (7.4%) | |
| Sufficient | | | Insufficient | () |

5. Rate the school toilets at **D block**.

- | | | | | |
|---------------|-----------|-----------|-----------------|-----|
| 1 (5.6%) | 2 (52.9%) | 3 (32.4%) | 4 (8.3%) | |
| Very hygienic | | | Very unhygienic | |
| Very clean | | | Very dirty | () |

1.8% of the students surveyed did not answer this question.

6. Rate the school toilets at **E block**.

1 (2.8%) 2 (25.9%) 3 (51.9%) 4 (19.4%)
Very hygienic Very unhygienic
Very clean Very dirty ()

7. Does the **environment** of the toilets affect how you treat the toilets? E.g. Cleaner toilets affect me psychologically by encouraging me not to dirty the toilets.
- a. Yes (Proceed to the next question) (57.4%)
 - b. No (Proceed to Q.10) (39.8%) ()

2.8% of the students surveyed did not answer this question.

8. Please state how or in what way the **environment** of the toilets affects your treatment of toilets.

9. If given a chance to change/improve on the present **environment** of our school toilets, what would you suggest the school to do?

- i. _____
- ii. _____
- iii. _____
- iv. _____

10. If given a chance to change/improve on the present **hygiene conditions** of our school toilets, what would you suggest the school to do?

- i. _____
- ii. _____
- iii. _____
- iv. _____

11. Do you think everyone (cleaners and students) is doing their part in keeping the school toilets clean? Why?

Thank you very much.

THE END

Appendix E: Survey Questionnaire 2

Name (optional): _____ Class: _____

Level: Sec 1 / 2 / 3 / 4

Tick one:

Floating

Non-Floating Specific Homeroom: _____

NOW THAT IT'S AFTER SARS.....

1. Approximately how many times do you use the toilet a day?

- a. 0 to 2 times (47.42%)
- b. 2 to 4 times (36.1%)
- c. 4 to 6 times (8.25%)
- d. 6 or more times (7.2%) ()

1.03% of the students surveyed did not answer this question.

2. Do you flush after use?

- a. Always (93.81%)
- b. Often (4.12%)
- c. Sometimes (0%)
- d. Never (2.06%) ()

3. Rate the school toilets at D Block. (general cleanliness)

- | | | | |
|---------------|------------|------------|-----------------|
| 1 (6.19%) | 2 (65.98%) | 3 (20.62%) | 4 (4.12%) |
| Very hygienic | | | Very unhygienic |
| Very clean | | | Very dirty () |

1.03% of the students surveyed did not answer this question, 2.06% answered 2.5.

4. Rate the school toilets at E Block. (general cleanliness)

- | | | | |
|-----------|------------|------------|-----------|
| 1 (5.15%) | 2 (25.77%) | 3 (55.67%) | 4 (8.25%) |
|-----------|------------|------------|-----------|

Very hygienic

Very unhygienic

Very clean

Very dirty

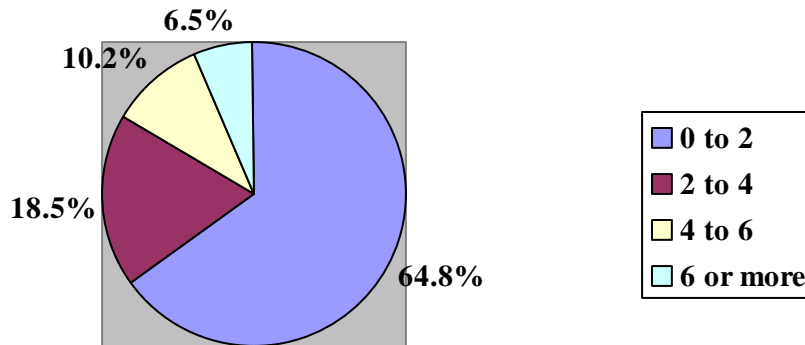
()

5.15% of the students surveyed did not answer this question

Given the fact that the green men clean the toilets 4 times daily(morning, after 10, after 12 and after 4) and the new green women have recently been employed to go round the school toilets in three cycles daily... and... Our school toilets are cleaned with Dettol and Chlorine, 20 minutes per cubicle... and... our school spends monthly: Dettol - \$400/mth, Chlorine - \$200/mth and Total (inclusive of workers' pay) \$1500/mth. Do you think the students are more responsible for the dirty toilets they have been complaining about? Any other comments related to this topic?

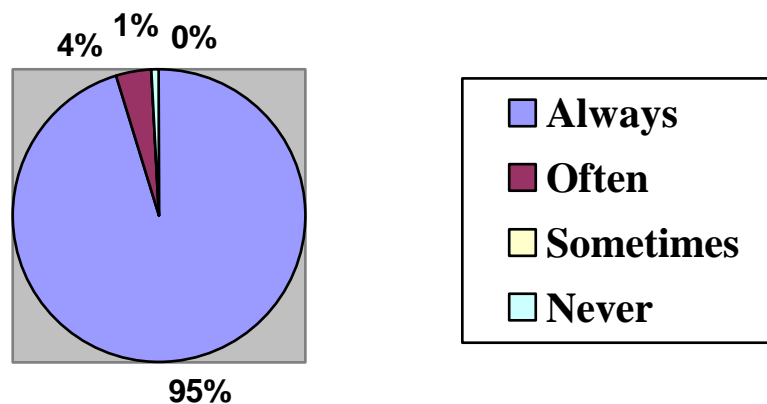
Survey 1 (Given out in the 2nd week of April, 2003)

1. Approximately how many times do you use the toilets a day?



There are a large percentage of students who use the toilets 0 to 2 times a day. We believe that this is due to the fact that the toilets are dirty and unhygienic, therefore the students are not so willing to visit the toilets as much.

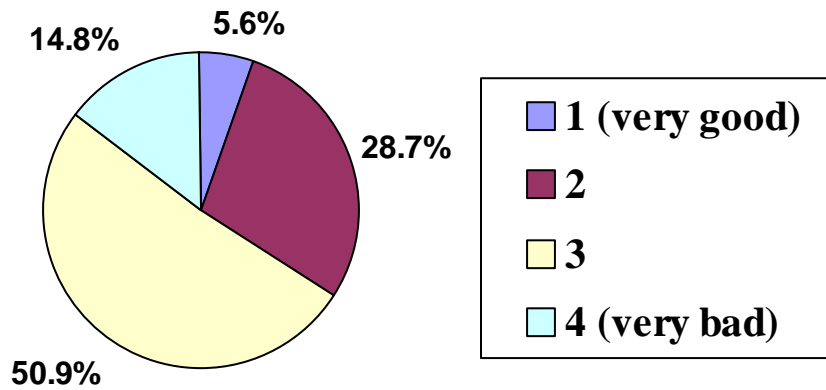
2. Do you flush after use?



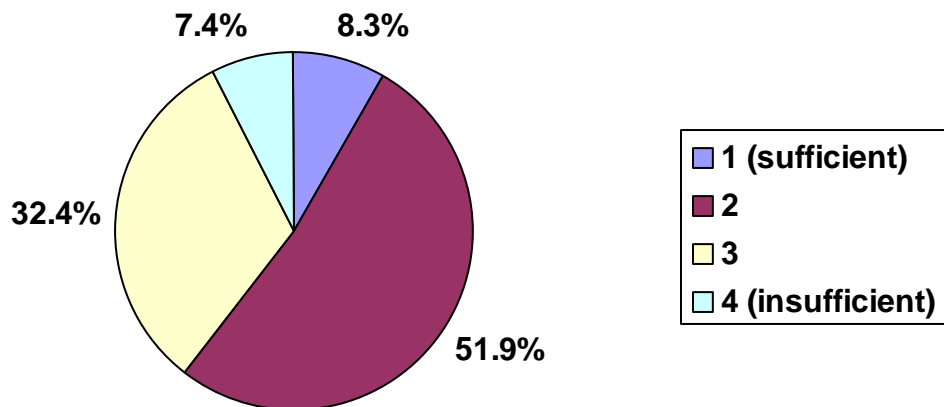
We were shocked by the fact that 1% of the respondents never flushed the toilet bowls after use. This result shows that although people assume that everyone always

flushes after use, this is not true because there is still 5% of them only flushing sometimes or even never.

3. Rate the physical environment of the toilets on a scale of 1 to 4 below.



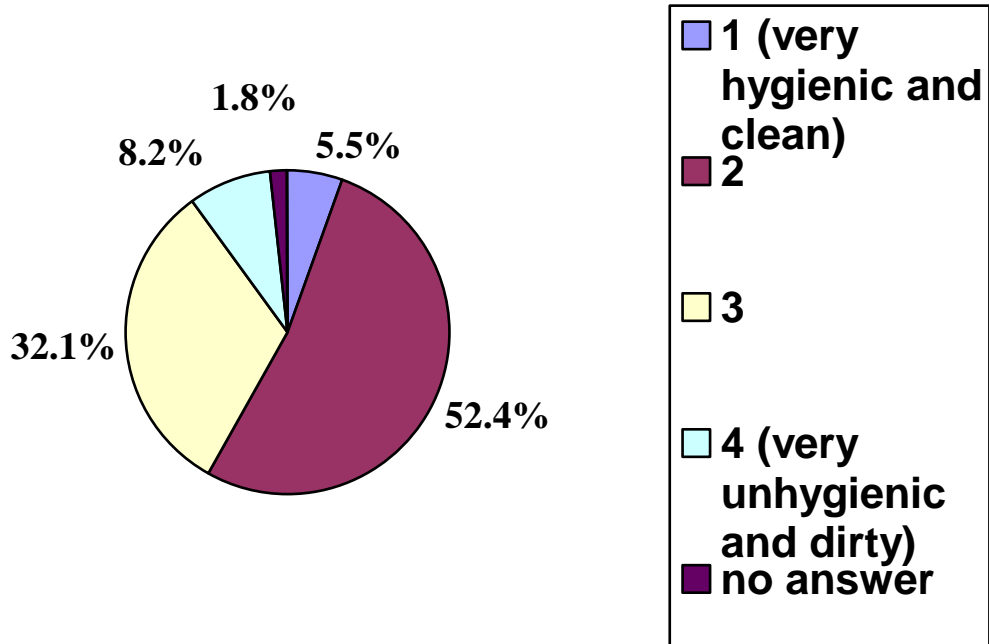
4. Rate the facilities(toilet flushes, rubbish bins, etc.) of the toilets on a scale of 1 to 4 below.



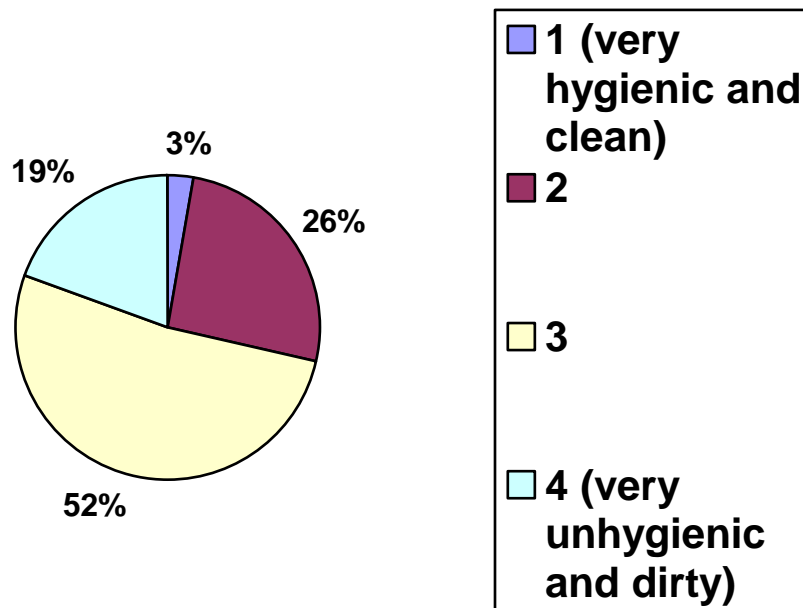
Majority of the respondents felt that the physical environment of the toilets were bad. This was unlike the results for the next question, where the majority of them felt that the

toilet facilities were sufficient. This probably means that students feel that the physical environment of the toilets in RGS is in a much worse state than the sufficiency of the facilities.

5. Rate the school toilets at D block.

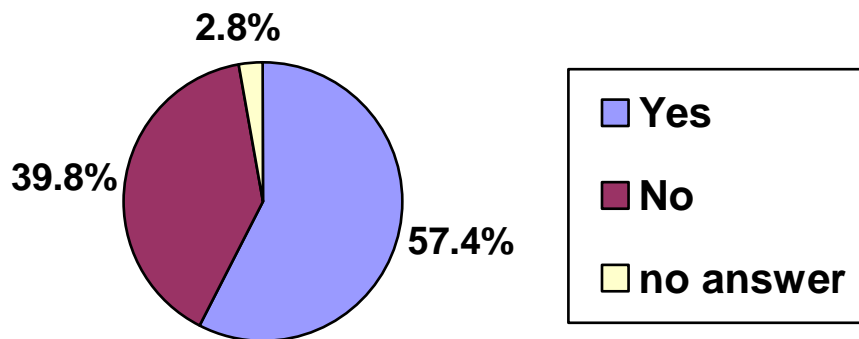


6. Rate the school toilets at E block.



Comparing both questions, the results show that students find D block toilets much cleaner and hygienic than the E block toilets. This is probably due to the floating systems that the lower secondary uses.

7. Does the environment of the toilets affect how you treat the toilets? E.g. Cleaner toilets affect me psychologically by encouraging me not to dirty the toilets.



We believe that most people would treat the toilets with proper usage, or at least better if the toilets are cleaner. Then they would feel that they do not want to dirty it as it would mean that people have to clean it again to maintain the clean state.

Survey 2 (Given out after SARS period)

Given the fact that the green men clean the toilets 4 times daily(morning, after 10, after 12 and after 4) and the new green women have recently been employed to go round the school toilets in three cycles daily... and... Our school toilets are cleaned with Dettol and Chlorine, 20 minutes per cubicle... and... our school spends monthly: Dettol - \$400/mth, Chlorine - \$200/mth and Total (inclusive of workers' pay) \$1500/mth. Do you think the students are more responsible for the dirty toilets they have been complaining about? Any other comments related to this topic?

31 students answered **yes**, without any comments.

35 students answered **yes**, with strong comments that the students are “irresponsible”, “selfish and do not flush the toilet after use”, “sometimes the flush do not work so the

students don't bother to flush", "the cleaners have done a good job, it's the students" and "the toilets are clean in the morning (cleaned by cleaners) but not at the end of the day"

4 students answered **no**, without any comments.

4 students answered **no**, with comments like "they shirk responsibility to the cleaners" and "it is a public toilet, not their own so why should they keep it clean."

23 students gave **-NIL-** replies.

Appendix G: Newspaper clippings

He spends \$150,000 on toilets and 5 hours a day in the loo

By Skye Tan

PEOPLE enter many public toilets with a look of concentration, and leave with a look of disgust.

One man is crusading to change all that.

Mr Jack Sim is on a solitary crusade: To make a trip to the public toilet a pleasure.

He is founder of the World Toilet Organisation and president of the Restroom Association of Singapore (RAS), which is spearheading the Happy Toilet Programme all over the island.

RATING RESTROOMS

Being launched this month, the programme will test, judge and rate Singapore's 70,000 public toilets and award Happy Toilet plaques to those that fulfil the criteria (See report on facing page).

Mr Sim, 46, said: 'I am Mr Toilet. My friends introduce me as Mr Toilet.'

Even his children call him that sometimes, he said.

And he lives up to it.

Mr Sim, who runs a building materials company, wore a tie bearing the symbols for men's and ladies' toilets ('My favourite tie') for a tour of the country's restrooms.

We stopped at four toilets: At Tampines Mall, Chef's Choice coffee shop on Ubi Avenue, the Shangri-La hotel and the Botanic Gardens.

At the Tampines Mall, the restroom for the handicapped got the thumbs-up for its friendly design.

The reason? The basin is easy to access while seated on the commode.

The diaper changing rooms outside of the ladies' room also got the nod.

The father of four said: 'It's unisex. Lots of fathers change their kid's diapers these days.'

'It's not good to have diaper rooms inside the ladies' toilets.'

With children between the ages of 6 and 11, Mr Sim talks from experience.

Mr Sim is convinced that the Happy Toilet campaign is a worthy cause.

He said: 'I wanted to do something important for society.'

Since the non-profit RAS was started in 1998, Mr Sim has sunk \$150,000 into it.

But why this particular cause?

He said he prefers to tackle something that others have not taken up as the challenge is greater.

He said: 'With causes like Aids, people may say it doesn't involve me. But everyone needs to use public toilets.'

The average person goes to the toilet six times a day and cleaner toilets make for happier people.

Making sure that public toilets are well kept is extremely important, he added.

'You often see people coming out of toilets with a disgusted face.

'They are used to being punished when they go into a public toilet,' said Mr Sim, who spends around five hours every day working on trying to make Singapore a land of Happy Toilets.

If he had his way, people would leave public toilets smiling.

Would there come a day when we actually linger in public toilets willingly and leave reluctantly?

Mr Toilet certainly hopes so.

Judging a toilet

MR Jack Sim said the different needs of toilets will be taken into account during evaluation.

'Certain designs are not useful in some surroundings, like a factory's toilet may require bigger basins so that machinery tools can be washed.'

The four toilets he took us to, all won high praise from Mr Sim.

SPACIOUS

Chef's Choice coffee shop had a clean and aesthetic decor.

The owners had sacrificed space for two possible stalls to install the spacious toilet.

Shangri-La Hotel's toilets were luxurious: There are chairs in the powder room.

Tampines Mall's toilets had been designed carefully: Non-slip floor and grates beside the basins so water can drip off into a drain.

The Botanic Gardens open-air concept toilets complement the location and offer good ventilation.

For the Happy Toilet programme, toilets will be awarded between three and five stars and assessed on design, maintenance and user-friendliness.

Toilets with three stars and above can display the Happy Toilet logo.

However, the owners have to pay for the evaluation as Mr Sim said: 'People would revisit a particular place if the toilets are pleasing.'

This means more profit, he added.

RAS members will carry out the evaluation, which can cost \$60 to \$80 per toilet.

The programme is supported by the National Environmental Agency and the World Toilet Organisation.