Swine Flu
October 2009 to July 2010

1. Forming of Groups

Groups were formed by teachers this time (instead of students) because the students were going to be engaged in a level of computer/internet work and reading/writing that had never been done before, and so the program coordinator felt it was crucial to ensure that groups were balanced with individuals that possessed some necessary skills.

Each group consisted of 5 to 6 students. While forming groups, the following was kept in mind:

a) At least one student must be proficient in reading

b) At least one student must be proficient in using the computer and internet

c) One student should be in charge of documenting the learning and experiences of the group

d) Ate least one student should be responsible for making presentations

e) One student should be appointed as 'group leader'

This was the first time that mixed-age groups were formed. Students of standard III & IV were grouped together in order to encourage inter-age social interactions between them, fostering mentorship-apprenticeship relations to benefit from the learning that can come from it. Efforts were also made to balance gender in each group.

Observations and Reflection: It was observed that initially the younger students hardly participated in their groups, and discussions were mostly dominated by the higher grade students. However, over the weeks, the younger students began to gain confidence and started to participate in discussions, while the higher class students seemed to share tasks with the younger ones more enthusiastically. Also, interestingly, teachers observed that students in mixed groups are more disciplined than same age-groups.

2. Introducing the project topic

One day, the teacher walked into class and asked the groups, "What is one disease that the world is facing at present?" Most students answered "Swine flu". After a little discussion, the teacher suggested that students should consider doing their current service-project on Swine Flu. The students enthusiastically agreed. The teacher then went on to suggest a framework for planning and action that they might adopt for their project (the stepwise approach of a service-project as documented here onwards).

Observations and Reflection: This was the first time that the program coordinator shared a framework for planning and action with the students – where the goals of the project were drafted and articulated, where a series of steps was established for carrying out the project, etc. The coordinator observed that this exercise helped to build greater enthusiasm amongst the students because they now had concrete goals and aims to work towards and assess their performance on. Furthermore, they were excited by the scope of the project and the magnitude of the impact that it could bring about in their community.

3. Researching the problem

This phase of the projects was the first to engage students in research and it had two parts - one in which students shared their prior knowledge on the project topic, and the second in which they discussed what more they needed to learn about the topic.

What do we already know about Swine Flu?

To begin their research on Swine Flu, students first tapped into their prior knowledge on the subject and discussed what they already knew about it. This was critical because it not only allowed students to revise the concepts and facts that they already know, but by sharing this information it allowed the whole class to be on the same page about the topic. Students were asked to make concept webs on what they knew about the disease, in their small groups. Each group then presented their learning to the large group. At times, the teachers were surprised at how much knowledge the students already had about swine flu, and they were pleased to know that some enthusiastic children had already begun collecting information on the disease from the internet, newspapers and other sources.
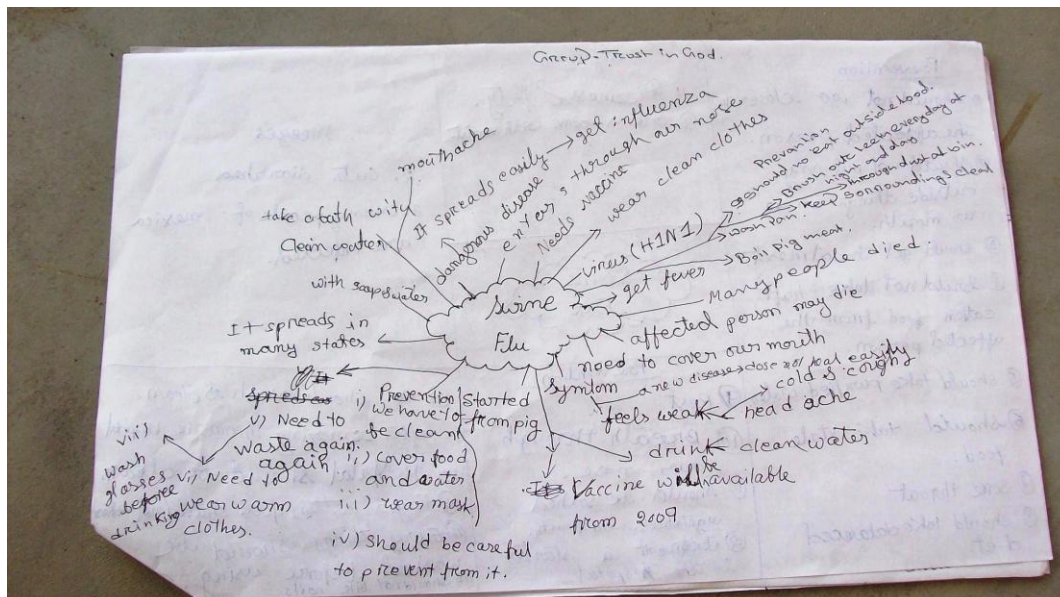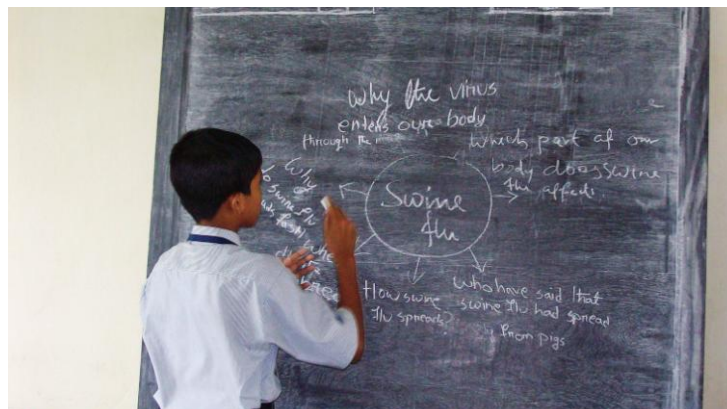

What we already know about Swine Flu (concept web by one group of students)

What we need to know more about Swine flu?

Before beginning their research on Swine Flu, students were first made to think about some specific questions that they would like to find the answers to. This question-making process was critical because if students were simply to embark on research on 'Swine Flu' they might have gotten lost in the infinitude of information available on the subject. Instead, by posing specific questions and looking for its answers, the students' research was given clearer direction and it was made more manageable and constructive.

Having established what they already knew, the students could now think about what more they needed to know in order to work on the problem. A brainstorming session was conducted in a large group setting where students were encouraged to keep throwing out any and all questions that came to mind on Swine Flu while it was being recorded on a concept web on the class blackboard. During this exercise, students were encouraged to frame their questions with grammatical accuracy. The teacher, noticing a teaching opportunity, used it to help students with their sentence phrasing, especially interrogative sentence phrasing (a concept being taught in English Grammar class). In addition to the phrasing, students were asked to pose relevant, specific and clearly presented questions.

What we already know about Swine Flu (concept web by one group of students)

Each and every question suggested was recorded, after which a process of consolidation took place - students helped to remove irrelevant questions and merge similar ones in order to create a more concise final list of questions to investigate and research.

Consolidating questions into a final list

Observations and Reflection: Students really began to understand the grammatical concept of interrogation and the practical importance of specificity when composing interrogative sentences. The following conversation recorded between two students during a group discussion is a great example of this learning in action – one student posed the question "Do we need to wear a mask?" to which his group member responded, "Your question needs to be more specific, like 'in order to prevent Swine Flu do we need to wear a mask?' ".

Once the final list of questions was formed by the students, they started researching the answers to it. For this purpose, the program coordinator collected newspaper clippings from sources such as The Times of India, The Associated Press (AP) and the Daily Telegraph, along with relevant print articles and videos from leading news websites like BBC.com and CNN.com. Each group of students was given a folder with the many news articles on swine flu and was guided in finding answers to their questions.

*Groups discussing the document s at hand a final list*

Teacher assisting a group to sort through the documents and find

Observations and Reflection: As students scanned various documents for answers to their questions, this exercise truly tested and enhanced their comprehension abilities to a degree that had never been done before. Though it was a rather difficult exercise, the students completed it successfully because they were highly motivated towards working on a real problem affecting the wellbeing of their community.

Some questions, however, could not be answered by the documents/articles given to each group, and so students were then made to watch a short video on swine flu (for additional information) downloaded from the internet. All the groups were brought together and the video was screened repeatedly for them on the school projector.

Watching a video on Swine Flu
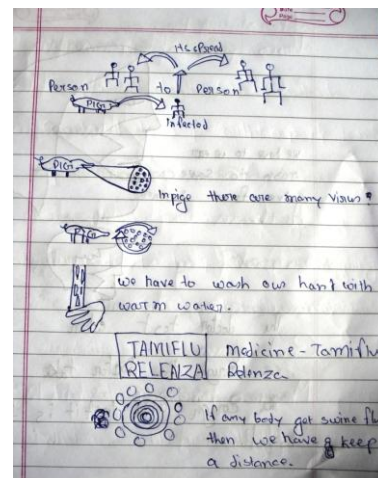
Notes taken by one group during the Swine Flu video

Observations and Reflection: Apart from receiving the answers to some of their questions, the students also developed their listening comprehension skills and note-taking skills through this activity.

Since, there were still a few questions on the list that were not answered, the students were encouraged to visit the WHO (world health organization) and CDC (centers for disease control and prevention) websites, for more information. Each and every student had the opportunity to surf the internet and for some of them it was the first time they had ever done so.

Using the internet for research

Surfing the internet in pairs

Observations and Reflection: The Central Education Board syllabus does not include surfing the internet at such low grade levels, however, our students learned the basics in browsing the internet through this project. They also understood how useful the internet is as a tool in gathering and sharing information.

Finally, the students were left with only one or two questions that had been unanswered – the ones more specifically dealing with Swine Flu and its presence in their hometown Udaipur. For this purpose, the program coordinator had made arrangements for the Deputy Chief Medical Officer of Udaipur to visit the students and answer any questions they had on Swine Flu. During his visit, students shared their research findings with the expert - who was very impressed with the students' knowledge on the subject. He was also very impressed with service-project program in general and said that in the past few decades that he has interacted with schools at Udaipur, he has never been exposed to such a constructive and exciting approach to learning and serving one's community.

Dr. Das, Deputy Chief Medical Officer, discussing Swine Flu with students

Having now collected a large amount of information and understanding about the problem, students now turned their attention towards using their learning to help them draw a plan of action that would benefit their community.

4. Finding a solution

With the help of a brainstorming session on the possible ways to protect their community from Swine Flu, the students concluded that spreading awareness on the symptoms, prevention and cures of Swine Flu would be the best course of action.

Discussion on 'what can we do to protect our community from swine flu'

This time, instead of visiting the homes of villagers and other community members, they decided to spread awareness to a larger population by visiting schools and making presentations to students. The visited students would in turn share the information with their families and this way many more homes would be provided with information since schools have large concentrates of children and it would be possible for our children to reach many more families this way.

Observations and Reflection: The students' decision to reach out to a larger number of families by visiting schools and spreading awareness to students instead of physically going door to door to visit families directly (as had been done in the past) turned out to be a very effective strategy. The students managed to reach out to more than 800 students (and thus, approximately the same amount of families), compared to the previous project where they only managed to reach out to about 45 families in the same amount of time.

5. Action

The students identified a few schools in the Udaipur town that they would visit. A strategy was developed to first visit only two schools in order to use the feedback from them to enhance their presentations, before then approaching a larger set of schools. Students began preparing visual aids and even made mock presentations to their group members for practice.

Practicing the presentation on group members

Mock presentation to group members

Once confident, the students went on to visit two schools they had identified - Goal Goan School and Gokulpur Higher Secondary School.

Presentation to Grade VII students at one of the first two schools

Presentation to students at one of the first two schools

Observations and Reflection: The students had shown remarkable improvement over past projects, in their skill of designing visual aids for presentations. Their 'Swine Flu' charts were much more legible and their ideas were more logically organized on it.

Though the entire project process thus far – classroom discussions, research, visual aids, etc – was all carried out in the medium of English, the students managed to make their entire presentation in Bengali (since, the two schools visited were Bengali medium schools). The coordinator and teachers were rather impressed with their students' excellent command over both languages and their never-before-seen ability to effortlessly translate their ideas and learning from the medium of English to Bengali.

Also, the 3rd and 4th grade Brilliant Stars School children were not even slightly intimidated by the fact that they were presenting to 10th grade students. In fact, the children asked their audience for questions, and when the class being visited would not do so then the children went on to ask them questions instead. This is a great example of how the students' self-confidence has developed so dramatically through participation in service-projects over the years.

After visiting the two schools, students went back to the 'drawing board' to reflect on their presentations and edit them before going on to visit more schools. The students decided that two changes needed to be made in order to enhance the presentations:

> i) Previously, every group member was not actively involved in making presentations, only one or two students from each group would take control and do all the talking. This was not ideal. Hence, it was now decided that each group would distribute different parts of the presentation amongst each of its members, ensuring that every student had a chance to speak and interact with the audience.
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> ii) Students felt that their visual aids (charts) used for presentations needed to be improved by reducing the amount of information printed on them and making them less cluttered.

Having made changes in order to improve their presentations, the students went on to visit three more prominent schools in Tripura.

Visit to Navodaya Vidhyalaya School

Visit to Palatana School

6. Reflection

Having visited five schools and spread awareness regarding Swine Flu to hundreds of students, the children spent some time reflecting on their learning and success through the entire planning, research and action process that they were involved in for the past eight months. The students' conclusions are best echoed by the words of one of the teachers who was intimately involved with the project. He said, *"This project was one of the best projects we have undertaken so far. Grouping students in mixed-age groups brought a level of discipline and cooperation that we had never before experienced. This project has helped the students develop their critical thinking skills and enhanced their level of understanding not only on the topic of Swine Flu, but also at various levels in all the other academic subjects."*

7. Exhibition

As a conclusion to the service-project, the students organized an exhibition to be held at the school. The parents of the participating students, and the media (All India Radio and other journalists) were invited. The objective behind the exhibition was to share the experiences, learning and successes throughout the entire service-project process that the students had been engaged in over the past few months.

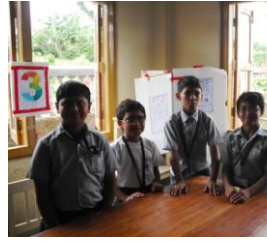*Exhibit Station No. 1*

Exhibit Station No. 2

Exhibit Station No. 3

Exhibit Station No. 4

Exhibit Station No. 5

Parents enjoyed the exhibition and were impressed at the knowledge and confidence that their children displayed to visitors. Several interviews of students and teachers were taken by All India Radio and newspapers journalists, and these were aired and published in the media during the weeks that followed.

Project at a glance:
- Number of schools visited: 5
- Number of students from other schools visited: 876
- Number of Brilliant Stars School Students participated: 57

Cross-curricular benefits of the project:
Science
Students studied the symptoms, cures, and prevention methods for Swine Flu. They also studied 'influenza' and its different types.

Civics
Students learned about the various agencies that provide health care and the different sources that one might acquire medicines from in order to cure Swine Flu.

Geography
Students identified different countries on the world map while trying to follow the spread of Swine Flu from country to country.

Literacy
Students enhanced their written and oral communication skills through the process of writing and delivering presentations. Their grammar skills (interrogation) and comprehension skills were enhanced dramatically, as mentioned earlier in this document. Their vocabulary increased while learning the names of diseases, medicines, etc. Students' computer literacy skills were enhanced as well, since they were engaged in active research on the internet.

Arts
Students prepared artistic visual aids to assist them in their presentations.

Spiritual development
Students practiced being polite, courteous, cooperative, patient, and humble throughout the project. Further, they better understood their responsibility to serve the community and experienced the joy that comes with it.

Social/emotional skills
Students learned how to work effectively in groups, more specifically, the older students experienced the joy and responsibilities of mentoring their younger peers while the younger ones took on the roles of apprentices.
With each passing project, parents and teachers are noticing dramatic improvements in the participating students' confidence levels, especially when it comes to discussing issues of importance with adults in their community.

Critical Thinking
This particular project engaged students in activities that exercised their higher order thinking skills to a degree that had not been done before. Students learned how to critically analyze information available in the media, how to sort, organize and make inferences from the information they had collected from various sources, how to summarize their learning, etc.