

Science Workshops in Chhatishgarh Schools

We conducted four science workshops in Chhatishgarh, two of them on Human Digestive System in (1) St. Paul's H. S. School, Raipur (an urban school), (2) Govt. H. S. School, Mandhar (a village school), and the other two on day-night, seasons, and eclipses in (1) Govt. School, Chowbe Calony, Raipur (semi urban school) (2) Govt. School, Selud (village school). The workshops were held on four consecutive days from 2nd July 2003 to 5th July, 2003. Children enjoyed the activities done in the workshops. We found the teachers to be quite receptive. The details are given below.

St. Paul's H. S. School, Raipur:

St. Paul's school is a private, missionary, government-aided, Hindi medium school.

Here we conducted a workshop on human digestive system. Thirty six children of St. Paul's school participated in the workshop. The school opens at 11:30 AM. So the workshop could start only at noon. The understanding and motivation of the children was not very high. Hence we could not do all the components of the workshop. We started with model making using paper. This was completed in two hours. The children did a reasonable job. It was quite surprising that they were not able to properly cut the paper. We believe middle-class urban children are not using their hand either in school or home.

After model making, we showed the animations and started the discussion. Since we didn't have much time, we continued with the discussion. We drifted through various aspects of human body. The children weren't asking questions in the beginning, but after some prompting they started asking. The questions were regarding diseases like indigestion, dysentery, headache, body pain etc. Some questions were "How do we think? How do we sense pain?" etc.

Due to lack of time we had to skip model making using plastic bottles and tubes. We distributed prizes to all the children and finished the workshop at 3:45PM.

One teacher showed interest in the workshop. The Principal Mr. S. E. Singh was very cooperative. Over all, the children didn't show a great response.



Govt. H. S. S. Mandhar

This is a govt. school in Mandhar, a village around 12 km from Raipur city. The children from four to five neighbouring villages come to this school for education.

In this school we conducted the workshop on human digestive system. We started the workshop at 9AM. We started with model making using paper. The children were very enthusiastic, and did a very good job. The electricity went off at this point. So we showed the animation film on digestive system using the laptop. The children saw the film with great attention. Then the discussion started. The children in Chattishgarh do not seem to ask questions. After some prompting and initiation, the discussion started. The main questions were “Why do we need food? Where do we get energy from? How do the plants get energy? Do the plants emit CO₂ or not? etc. The discussion was good.

After the discussions, the children started making models using plastics. They worked in five groups with six children each. They put a lot of efforts. The children were intensely engrossed in the workshop.

Around half a dozen teachers showed interest in the workshop. Two teachers stayed in the venue of the workshop throughout. Over all, both the village teachers and kids appear to be much more enthusiastic in the workshop than the urban children. We need to test this hypothesis by organizing further workshops and doing comparative studies.



Govt. School, Chowbe Calony

It is a semi-urban girls' school. Thirty eight (38) children participated in the workshop. Some boys from the adjoining school also participated in the school.

Here conducted two workshops on day-night, seasons, and eclipses. We started the workshop at 10:30 AM with computer-based game on day-night and seasons. We also

started the experiment on shadow measurement. Using 3D animations we introduced these concepts of spin and rotation of earth, latitude and longitude etc. The children enjoyed the session. We broke for lunch at noon.

After lunch we started model making. They finished it in two hours. At 2:30 we had discussions on shadows. After that we started the computer game on eclipse. We had a small outdoor game. We finished the programme for the children at 3:30 PM by prize distribution.

After that we met the teachers. We introduced ourselves, and discussed our ideas on education. After that the computer game on day-night, seasons, and eclipse was played as for the teachers. The teachers were very enthusiastic. They may start similar activity in the school.



Govt. School, Selud

We went a middle school near village Selud. Here we did the same activity as above in Chowbe Calony School. The teachers also participated in this activity. Unfortunately, the presence of teachers in the same classroom inhibited the free discussion with children. The teachers were not very friendly with kids. The model making session was very nice. They completed the work in around one hour (typically it takes two hours to make the model). The teachers were very pleased that people from a renowned institute had come to their school. Overall, the programme was nice.

We believe the science workshops conducted in Chattishgarh was very fruitful for children and teachers. Teachers here showed much more interest compared to those in UP. The rural and semi urban children liked our workshops more that urban children. Also, computers are now available in Chattishgarh schools, so we should make serious attempts to test and implement digital methods in Chattishgarh schools.

I met Mr. Amit Agrawal, Joint Secretary of IT, Biotechnology, and Technical Education. He is also CEO of Chhatisgarh Infotech and Biotech Promotion Society (ChiPS). He is a very enthusiastic officer, and he showed keen interest in our activities. We will be sending proposals to him for future collaboration on developing digital tools and contents.

I also talked to Mr. D. N. Sharma, a man working in primary education and Multigrade-Multilevel system of education. We invited him to visit Kanpur. We find that some interesting and innovative methods are being tried in Chhatishgarh, and it may be fruitful to collaborate with them.

