

On Science Clubs

Based on a note generated for "Brain Storming Session on Science Club Movement in India" organised by Vigyan Prasar, DST, Govt. of India & GUJCOST, DST, Govt. of Gujarat, at Gandhinagar, 30 & 31, August 2012.

Prof. Chitra Natarajan

Homi Bhabha Centre for Science Education (TIFR), Mumbai.

The aims of the brainstorming session: "Develop a road map for the science clubs so as to motivate the children and youth to take up scientific activities and contribute towards the cherished goals of achieving a scientific society throughout the length and breadth of the country."

The following are some ideas that may help sustain science clubs in schools.

Science Clubs in schools need

1. Commitment of school management
2. Community support
3. Resources - time, funds, teachers, materials
4. Academic support
5. Ideas and variety

Brief suggestions to address these needs are given here.

1. *Commitment of school management:*

This is critical for any school programme to take off and sustain. To get management to commit to science club

- link science club to enhance school's visibility and recognition, and
- link science club activities to building educational resources.

2. *Community support*

The support of parents is essential for the success of science clubs. Involve them in science club activities:

- as audience in debates and elocutions
- by inviting for poster and other displays
- by placing the science club activities in students' environment - social, natural and built
- taking students' suggestions of community problems or questions in every day life

Community related activities are more authentic for students. Involve the community – gram panchayat, local leaders, local NGOs - in choice of locally relevant issues to research about, analyse, suggest multiple solutions, etc. Invite community to students' presentations.

3. *Resources - time, funds, teachers, materials*

Time: This is one of the key determinants for sustaining science clubs. Both teachers and students need time that they spend on science club activities. One way to do this is to include this time as part of the school proceedings.

Funds: Science clubs need funds, regularly and reliably. Funds are needed in limited amounts - they should be community and school supported. But the funds should be specifically allocated for materials and kits, for maintaining the school computer, to spend on CDs and books, stationary for posters.

Accountability should be built into the fund disbursement mechanism. One way is by requiring evidences of school activity to be sent at regular periods to the disbursement agency, and subsequent funds being made contingent upon it.

Who should the funds be routed through? DIETs? SCERTs? District Education Offices? The disbursements and activities could be monitored by Local Working Groups (District level), Zonal Working Groups (State or higher) and the National Working Group.

Teachers: Teacher orientation is essential for science clubs. Where possible, these should be arranged. Where there are motivated teachers, they should be given incentives and support to initiate and sustain science clubs in more than one school by training other teachers. Block level science club resource groups can be formed. DIETs, BRCs, etc. can be used as support groups and facilitating areas. The Working Group idea specified elsewhere (BEST project) and alluded to above must be used for support and monitoring.

Materials: Kits and materials, CDs with activity ideas and some stationery may not be essentials for doing science club activities. But they help when given. Ideas for club activities must depend on locally available materials, using the local environment and kitchen and every day objects for science activities.

4. Academic support

An “Adopt a Scientist” scheme can be used for academic support. Every school adopts a scientist, who may be a scientist, engineer or technologist working in nearby locality, town, in industry, college or R&D institution. It could even be an local person interested in science popularisation, or an science educated housewife. The adopted scientist gives a fixed time to the science club and encourages and oversees its activities. He/She also helps document the activities.

Another possibility is to involve students from local colleges - science or engineering colleges, first and second year students may be given credit for working on science projects among local schools. It could be on the lines of NSS.

5. Ideas and variety

Variety of ideas is essential for sustenance of motivation in science clubs. This can be brought by choosing local problems, and by sharing problems, questions and models of working across Districts, States, the Country. A mechanism must be devised to share information - mobiles, emails, social media, may all be used for the purpose.

Mumbai
02 July, 2014