

Research Paper

SCIENCE CLINIC – AN INNOVATIVE WAY TO LEARN SCIENCE**Dr. Chandrakant Ragho Baviskar**

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ABSTRACT

At primary and secondary level, the subject of science is an integral part of syllabus. The main purpose behind including science subject in syllabus is to make students aware of the presence of science in day-to-day occurrences and mould a science-oriented society by inculcating scientific thinking process and scientific attitude in students. For that purpose, science teaching should be done according to the principle of 'learning by doing' method. In the current system of learning – teaching, emphasis is given on traditional method of learning – teaching, which makes it difficult for the teacher to evaluate whether all the students have grasped the knowledge, understanding and application aspects of the subject. More so, students find it tough to visualize tough and abstract concepts of the subject which begins to create dislike for the subject of science in the minds of the students. As a result, students resort to the method of learning by heart (rote method), which ultimately affects the purpose of science teaching. Hence, in this paper, through the medium of innovative science clinic, attempt is made to fulfill the purpose of science teaching by way of understanding and application of science factors.

Key words: Science. Science clinic, Innovative, Learning
Introduction

In higher education, the number of students opting for science always exceeds the no. of students going for arts and commerce faculties. The main reason behind it is the no. of career opportunities which are made available to students after the completion of science syllabus/ study. Due to career opportunities available in science faculty, either students have to face failure or the career opportunities in the field seem to be like illusion. The main reason behind so happening is that the base of science subject remains weak at primary and secondary school levels. That's the reason why the no. of students opting science stream seems to be decreasing from the last few years. Instead, the students tend to opt more for professional courses rather than opting for science subject.

A science teacher has to complete his syllabus in time, in addition to performing extra-school responsibilities. Generally, teachers complete their syllabus by traditional method instead of bringing about changes in the learning – teaching process, depending upon students' competence levels. In schools, science period is of the duration of about 30- 35 minutes. In this duration, it is impossible for the teacher to evaluate whether each student has grasped the topic in a class having about 40-60 students. Some science teachers complete their syllabus by using lecture method or by giving notes in the class. Some of the science teachers are discipline-oriented and strict, which creates a kind of fear in the minds of students. Some teachers spread the misconception that science is a tough subject for which students need to work very hard. Some of the teachers have very good knowledge of science, but they can't teach effectively by reaching up to the level of the students. Teachers fail to teach science by taking students outside the four walls of class room. All these reasons/ factors go to create a dislike towards the science subject in the minds of students and they tend to study it only from examination point of view.

Science Clinic

It is necessary for the teacher to diagnose whether

students have grasped all the concepts in science subject and if necessary, undertake corrective teaching if the students have not understood the concepts by undertaking proper corrective measures, thereby the teacher would be able to fulfill the cognitive objectives of science subject and by which students would grasp and be able to apply science subjects which in turn, would induce scientific attitude and scientific thinking process in them. To make this process successful, it is needed to resort to some innovative corrective measure. Consider the following example - If a patient doesn't feel well even after taking domestic medicine, he is required to be taken to clinic for seeking medical help. Similarly, if the objectives of science subject such as knowledge, understanding and application aren't fulfilled even after teaching science by traditional and other methods of teaching, then science clinic can play an important role in raising the knowledge, understanding and application competences amongst students and thereby would induce liking in science subject.

Science clinic**Definition**

Science clinic is an institution providing diagnosis and treatment related to science subjects or offers counsel and instruction in a particular science concept for students.

The process through which a science teacher undertakes the task of exploring the difficulties of students in understanding and undertakes the task of teaching the subject by applying the concept, experimental and corrective method and thereby empowers the students to understand in an easy manner by employing the method of knowledge, understanding and application is called as science clinic.

Why use Science Clinic?

Science Clinic can play an important role in inducing the liking in the subject of science by empowering students to apply and understand the day-to-day events in a visible manner in a systematic / scientific manner. Through Science Clinic, students' thinking process would be given a momentum and scientific attitude would be created in them. Through Science Clinic the rules and principles in science could be identified and applied by students in a tangible

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manner, which would raise the level of confidence among students and they would develop a creative outlook towards science subject. It is not possible to pay individual attention to each student in a class, but in science clinic, individual attention will be provided to student till he understands / inculcates the concepts of science. This would raise educational merit of students. In science clinic, each student would be considered as a separate case and hence experiments and action programs would be prepared according to his individual capacity and understanding level. Through it, the students would get full opportunity to obtain in-depth knowledge about science concepts. Due to science clinic, science would become an easy subject rather than being a tough and difficult to understand subject. The stress of students about science would be reduced since each aspect would look to be fresh to students.

Conclusion

If the concept of science clinic is applied at school and private level, it would induce the student to take interest and develop liking in the subject. In addition to scoring well in science subject, students would be able to apply concepts of the subject skillfully in their lives and thereby the level of their creativity would be raised. They would get inspiration to explore new possibilities owing to their creative and other skills, which would eventually lead to creation of skilled human resources which would, in turn, lead to development of the nation.

References:

1. Chauhan, P. (1997). Achievement in Science. New Delhi: Anmol Publications Pvt. Ltd.
2. Goel, D.R., Goel C. and Madhavi, R.L. (2007). Abstracts of Research Studies Conducted by Teacher Education Institutions in India. Vadodara: CASE, M. S. University.
3. Giovannini and et. al. (2010). Fostering the use of ICT in pedagogical practices in Science Education. Retrieved on October 13, 2011 from www.elearningpapers.eu.
4. Gott, R. and Duggan, S. (2003) Understanding and Using Scientific Evidence. New Delhi: Sage.
5. Misra, K. S. (1992). Perspective in Science Education. Agra: Vinod Pustak Mandir.
6. Radha, M. (2005). Innovative Science Teaching for Physical Science Teachers (2nd Ed.). New Delhi: Prentice-Hall of India Pvt. Ltd.