

Practical work in science subjects

Some state governments are planning not to count marks obtained in practical examinations while determining the merit of a student at the Senior Secondary Board Examination (i.e. 10 + 2 level), for admission to courses like engineering, medicine, etc.

If this decision is implemented it will be another blow to science teaching, which has already been suffering from paucity of funds to run science laboratories in schools, colleges and universities of this country.

This has defeated the basic objective of science curriculum completely. In many schools and colleges, the number of contact hours assigned to practical work is not treated on par with hours devoted for theory sessions. Only two-thirds of contact hours devoted for practical work are

counted when the workload of a class or an individual teacher is calculated. This inculcates in science teachers a careless attitude towards practical work.

Continuously increasing cost of equipments and consumables for laboratories on one hand, and frequent curtailment of funds provided by the management and government on the other, have put science laboratories in universities in a pathetic condition, what to talk of schools and colleges. Looking at the high cost of scientific equipment and infrastructural facility required for science laboratories, several educational institutions hesitate to put basic science subjects in their priority list. In such an embarrassing situation, science-funding organizations like UGC, DST, CSIR, etc. are the only hope.

The practical work being carried out at the laboratories in schools and colleges and the practical examination patterns have lost their credibility. Any steps to discourage practical work in science subjects, will be disastrous for the future development of this country. I am afraid no science subject can grow without giving due importance to practical work and its proper evaluation.

B. S. PALIWAL

*Office of the Dean,
Faculty of Science,
Jai Narain Vyas University,
Jodhpur 342 005, India
e-mail: paliwalbhawani@yahoo.co.in*

Practical steps needed for water resource management

This refers to the articles on water scarcity in India¹, and water resource planning and management². Population growth and economic development are leading to pollution of natural resources like freshwater. Statistics shows that increasing population has resulted in reduction in per capita consumption of water every year. Requirement of water for drinking itself will be a major cry in future, apart from the need for agriculture and industrial projects; soon it may become a major national problem. Modern biotechnological advancements are needed in relation to water shortage.

Many scientific studies in India have revealed that majority of our water bodies are polluted, machineries to combat pollution menace have completely failed and our artificial canals and other water storages are in bad shape. India had enacted

a large number of laws and amendments pertinent to environment-related issues, but we are not attending to them efficiently and amicably. Instead of making new amendments and setting up new committees and bodies, one should implement the existing ones in an efficient manner. This is the real challenge to our government machinery and scientific community to be taken with top priority. Some major concerns and tips to be taken on a war footing prior to interlinking of rivers in India are: preservation and use of water bodies like rivers, lakes, logged waters and wetlands in their original pristine condition, construction of vented dams in rural areas to provide more water for agriculture (which dramatically recharges the groundwater aquifers and also increases productivity), strict vigilance to control pollution menace, and public awareness.

Mega ventures like interlinking of rivers³ is a welcome step for our nation, provided they are for the betterment of humankind, rather than demonstration of political will.

1. Gupta, S. K. and Deshpande, R. D., *Curr. Sci.*, 2004, **86**, 1216–1224.
2. Sainudeen, S., *Curr. Sci.*, 2005, **88**, 209–210.
3. Biyani, A. K., *Curr. Sci.*, 2004, **87**, 277–278.

K. C. SHASHIKUMAR

*The ICFAI Institute of Science and
Technology,
Sitapura 302 022, India
e-mail: shashikumar100@hotmail.com*