



in Bangladesh

to their applications for useful purposes.

More than 90 per cent of the students enrolled for university education in science and technology are below average and poor in quality because of ineffective pre-university educational standards and for other reasons. The university education in science and technology also can not make up the deficiency and bridge the gap since the universities in Bangladesh also lacks the laboratory facilities and trained teachers for imparting standard education conducive toward the applications of science and technology for the development programmes.

Development of infrastructures for local production of instruments for the purpose of education in science and technology is one of the steps to upgrade the academic standard and create the atmosphere of self-help, self-reliance and confidence to achieve the desired objectives.

The development of the project for "locally produced low cost" equipments for science education is of dire necessity for Bangladesh situation not only because of the increasing high cost of imported equipments but also to create conditions for providing facilities of experimental education to ever increasing number of students in colleges and universities of Bangladesh.

It is essential that the students are exposed to the thrill of personal experience of knowing the intricacies of equipments and acquire the skill to perform experimentations with the help of instruments made by themselves instead of learning science by a rote system. Transfer and transplantation of educational system either conceptual or experimental can never be universally effective. The system to be accepted through the process of evolution should be based on the

specific social, cultural and educational needs and of utility value for the overall advancement of scientific and technological infrastructures which will open a new vista of national upliftment.

Intensive training of teachers to develop skills and confidence to design, improve, adapt, modify and innovate is necessary for making the project of LPLC equipments a success. Refresher courses at regular intervals for conceptual advancement for older teachers is also necessary for updating the teaching ability.

The students and teachers are required to work harmoniously to fully realize the importance of the fabrication of low cost equipments. It is of no use to give instructions to teachers in a workshop for fabricating equipments unless the teachers develop the basic skills and confidence to try the instructions and motivate the students to become interested and appreciate the programme of LPLC equipments. The success of the project can only be evaluated by a long term follow-up programme duly instituted by the concerned organizations.

The curriculum development in science and technology for the university students should comprise resource development, industrial applications for quality products, environmental monitoring, increasing agricultural output, survey of biological systems, eradication of diseases and malnutrition, improvement of health and sanitation, expansion of transport and communications etc. for the ultimate objective of the welfare of mankind.

CAMPUS TIMES

Science, technology teaching

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Science and technology teaching in Bangladesh predominantly deals with handing out irrelevant, incoherent and inconsistent courses to the students for the sole objective of degree and diploma earnings which serve as the yard-sticks of academic achievements. The creation of opportunities for experiencing the systems of the universe and the facilities for applications of science and technology is few and far between.

The shortcomings and deficiency in turning out skilled manpower resources to deal with the problems of modern technological civilization have rendered the indigenous applications of science and technology a far cry.

There is general consensus that science and technology teaching be based on the local conditions and oriented to the national needs. But mere realization of the problems does not solve the problems. Planned steps toward the implementation of the goal-oriented science and technology education have to be undertaken.

It is necessary to radically change the age-old methods of teaching science and technology by simple rote system into the problem-oriented thought provoking and of immediate concern to the applications for not only solving isolated problems but for the constructive approach on the basis of socio-economic demands and future safeguards by creating the infrastructures for the production of skilled manpower resources capable to carry out developmental programmes based on rationalization, intelli-

tion, adoption, adaptation in innovation and expansion of the application of science and technology. Large scale plagiarism to be adopted if necessary. I support and congratulate the Zinjira and Dholai Khal technology for creating some sort of base for the development of local technological infrastruc-

tures. Perhaps relevant education planning and skilled generation with training could bring about refinement of this indigenous technology toward production of standard goods in the long run.

Education in science and technology as it exist today in Bangladesh definitely needs to

be strengthened by introducing both the pre-service and in-service training of teachers to make up the deficiency of the educational systems which is mostly based on "Chalk and talk" method. Merely theoretical abstraction in science and technology education is devoid of creativity of skills related