

Integrated Curriculum and Technology Education

Ananda Jayawardane
Head, Department of Management of Technology
University of Moratuwa

Planners and designers of technology education in Sri Lanka today should essentially recognize the need for developing and sustaining **National Technological Capability**. The ultimate and broader objective of strengthening National Technological capability is to contribute effectively to socio-economic development at all levels.

The spectrum of technological capabilities could span from simple tasks like using a piece of technology such as a programmable audio-video equipment, a personal computer or a photocopier that may be found at home or office, to sophisticated activities like generating new technologies to support our industry through research & development.

In the above perspective, our secondary school technology curricula is expected to specifically address some generic issues like **making the student comfortable with technology and its simple applications** that may eventually lead him/her to develop an interest and enthusiasm in furthering his/her knowledge within the science & technology domain. This may also pave way to shape his/her future course of action with regard to career development. One interesting aspect of the education systems of the developed countries is that from the early stages of their schooling students are given assignments that require independent analysis, social and business interaction as well as some innovative thinking. These assignments provide the student an opportunity to expose him/herself to the real world cases eventually making them readily employable in a range of areas by the time of leaving school. This aspect should be appropriately addressed in our technology curricula too.

Technology itself is a difficult area to define. Some say it is the application of science. Another would argue that technology is know-how (which is considered an industrial art) whereas science is generally described as know-why (systematic and formalized knowledge). Technology does not have to be complicated, and more importantly, it deals with human work and therefore, consists of a human element as well as informational and procedural elements. Therefore, it would be an important element of the process of curriculum development to give due consideration to the soft aspects of technology as well.

Technology, taken in an applied context is necessarily multidisciplinary. We cannot think of many business situations that use only one mode of technology, because technology appears in the real world as products and services, not as mere pieces of technology. When it comes to the application of science, it too appears in an integrated form. We can rarely find direct application of pure sciences other than a limited number of cases such as nuclear science. Therefore, the need for an integrated curriculum for technology is well justified. Thus, this paper attempts to explain the importance of an integrated curriculum for technology education and provide some thoughts to be considered in developing technology curricula at secondary school level.