C-13: Infusion of innovative creativity

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Inspite of the very-often-mentioned 'political slogan', "Sri Lanka is having one of the highest levels of education in Asia", the reality is that the present generation of school leavers do not, in general, have the basic and essential knowledge of science. Parents, teachers, educationists, universities and academics, and even political leaders of the country are worried over this situation. Lack of science teachers, some schools have no science laboratories and others have abandoned or neglected science laboratories due to not having funds, interest and care are some reasons behind the downfall of science education.

Genuine innovative and inventive talents are very rare in the country, and this is a serious impediment to the technical advancement of the nation. Government institutions are taking some steps to enhance science education and popularize science and technology.

Many parents and guardians, and even teachers, have no proper idea of the great importance of a good science education that is indispensable to lead the nation towards innovative thinking on all the aspects of life, say, politics, democracy, health and education, justice, environment and land, energy, industrial progress, and peace and prosperity. Progressive thinking and change of attitudes is a major requirement of the present.

To develop imagination and creativity in school children, more practical, popular and updated science should be included in the school curriculum. Infusion of innovative creativity enables them to tap their natural abilities for their own benefit and that of the nation. This, however, needs very careful guidance on the part of educationists and administrators.

Needs and interests, and thinking pattern and desires increase in complexity during adolescence. Besides the primary requisites like food, clothing, education and higher degree of freedom there are locomotive and sensory drives that affect behaviour and evoke new attitudes. Adolescents are eager to approach, explore and learn about new objects and subjects. Adolescent motivation emerge from pubertal developments and experiences, which, in turn are influenced by racial (caste) and socio-economic background,

resources and childhood experiences. The need for novel experience is a major force driving the adolescent towards activity and self-improvement. Joining various clubs of hobbies, social activities, and involvement with new groups and adventures are typical characteristics of adolescents.

Youth insurrections, chaotic situations in the universties, and unemployment problems have a major root: natural talents and abilities are not tapped even at minimum level for their and society's benefit.

Recently, the National Institute of Education, Maharagama, conducted a 2-day workshop aiming at popularization of science in schools. The following is a summary of the facts forwarded to the audience by the author.

(1) To have a modernized science curriculum paying more attention to appropriate technology and practical science.
(2) To conduct specially prepared, rapid, regular training courses in Innovative and Creative Dynamics for teachers, before the message can be passed on to the student.
(3) To initiate in all the schools, at least in the humblest possible manner, Young Inventors' Clubs with the assistance of the Sri Lanka Inventors' Commission and the Lanka Inventors' Association
(4) To initiate and run in a consistent manner Hobby Clubs in Schools; say, radio, environment, agriculture, astronomy, photography, energy, appropriate technology and literature clubs.
(5) To conduct science programmes, competitions, exhibitions, at least in symbolic level and small scale, in schools.
(6) To have regular lecture programmes, say monthly, for the students, and get assistance for such activities from research institutions, popular figures including engineers and and scientists.
(7) To take students on excursions, science exhibitions, picnics etc.
(8) To guide youth towards team work, leadership, public relations, social work and 'Shramadana Campaigns'.
(9) To get any possible assistance from the private sector, Universities, Pradesheeya Sabhas in promoting these activities in schools.
(10) To honour in a due manner, while appreciating the talents and abilities of the youth, so that they see'a light at the end of the tunnel'.

It is the innovative and inventive abilities of a nation that clearly decide its economic success, industrial progress, technological advancement and social well-being. The secret behind such abilities is the infusion of innovative creativity to the nation under an adequately planned, wisely controlled education system. In developed and fast-developing countries, systems have been designed and commissioned with essential resources, guidance and environment for children, adolescents and adults to sharpen their innovative and inventive talents. Sri Lanka, even though very late in this matter, has many lessons and examples from which to learn. Even if the much needed, advanced technologies are transferable, in case the needs arise how can it be done if the society that will accept technology has no sound knowledge, lobbying power technical know why, technology management and technology development abilities, with respect to growing demands, dwindling resources, and heavy competition?