

Role of technical education in human resource development

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Excerpts of the Keynote address delivered at the Certificate Award Ceremony of the National Institute of Technical Education, Sri Lanka on 14 February 2001 at the Auditorium of the NITESL, Ratmalana.

I certainly consider it an honour and privilege to have been invited to deliver the keynote address at this Certificate Award Ceremony and the Second Anniversary celebrations of the National Institute of Technical Education of Sri Lanka (NITESL). The timing of this event is also of great significance to those of us who are deeply interested in promoting technical and vocational education in this country, because this institution is presently being considered for elevation to a degree awarding institute in Sri Lanka.

If one considers education and training which are the tools of human resource development, there are 3 major areas of activity. They are, general education at school level, post-secondary - university level education, and technical education and vocational training. At the moment these 3 major areas are coming under 3 different Ministries in Sri Lanka, unlike in most other countries.

Reforms in all 3 areas were initiated simultaneously for the first time in the history of Sri Lanka with the initiative coming from none other than the President. Presidential Task Force reports were submitted in 1997 in all 3 areas mentioned above. The implementation of General and University reforms commenced in 1998. University reforms were initially slow but these were accelerated in the year 2000. Reforms in technical education were again delayed and slow due to many reasons.

Technical education has a Complex system with Institutions scattered and poor coordination. There was no proper organisational structure for the whole system. Because of these and many other reasons in implementation was difficult earlier but the new organizational structure and fresh initiatives have created a better atmosphere for the implementation of technical education reforms.

Historically the technical education has not been given its due recognition and attention in Sri Lanka. The technical education was therefore an area we have neglected so far and therefore it needs special attention to bring it up to a main stream of tertiary education acceptable to the general public today.

Although Sri Lanka is acclaimed by international organizations for achieving high literacy rate, the country still lacks the required technical and technological skills required for rapid economic development. Therefore, in the process of expansion of tertiary education utmost priority should be given to promote technical education, vocational training and professional education so as to open up more avenues for those who seek tertiary education opportunities.

It is essential that a proper recognition should be given by the State to this sector as an alternative path for tertiary education with a clear path for career advancement leading to social uplift. I consider this as a fundamental issue in this sector.

This process must be very clear and precise. For this we need a clear path one may follow and a suitable mechanism for lateral and upward mobility. There should be provision and a path to obtain a first degree and postgraduate qualifications in different technical and technological disciplines.

While general education and university reforms are in progress to improve the quality, simultaneously special attention should be given to upgrade, expand and diversify technical and technological education in Sri Lanka. These training programmes should be of high quality and should offer wide ranging courses/training programmes relevant to specific needs of the country, leading to certificate, diploma and then to degrees.

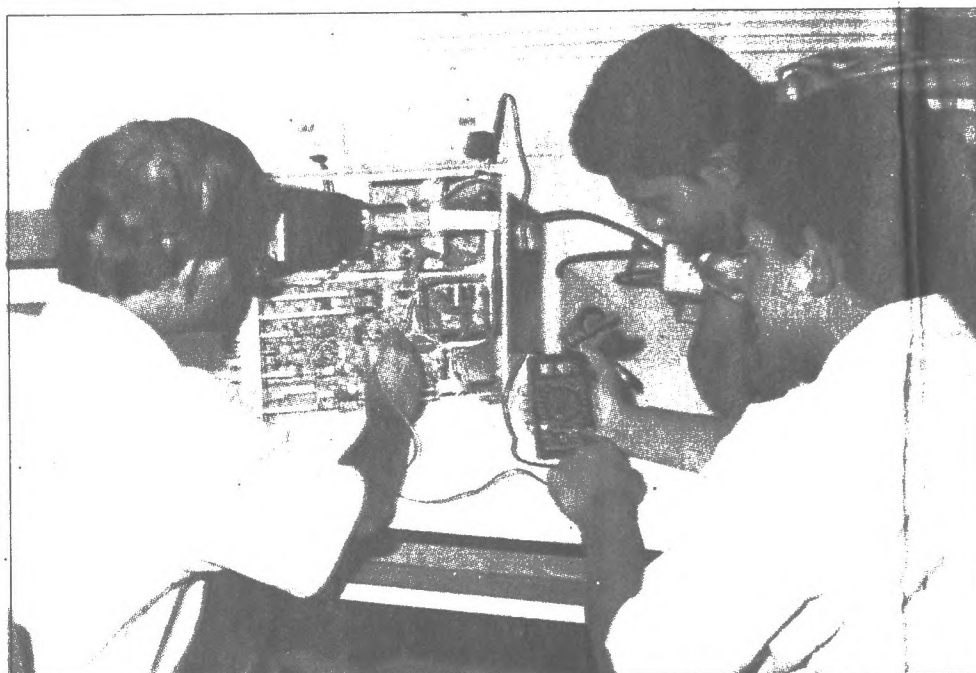
Students who enter institutions of technical education and vocational training with G.C.E. (O/L) qualifications and perform well should have access to university level education after completing their diploma. Such provision will certainly encourage more students to follow this path.

Moreover, there should be a strong link and a credit transfer scheme should be operative between technical education institutions and conventional universities.

All these measures are incorporated in our university reforms package, which is being implemented at the present time. On going university reforms allow multiple entry to the university system. This will provide opportunities to lateral and upward mobility for those holding certificate and diploma qualifications in technical and other professional fields. This is made possible through the implementation of credit transfer scheme. This means that when the reforms are fully implemented in our university system your diplomates also will have access to our traditional universities. Unfortunately, doors have been closed to them up to now.

We have in fact inherited one-track and rigid higher education system. This system needs opening up

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allowing more and more alternative avenues for higher/tertiary education. Wide ranging opportunities for technical education should be available not only to A/L qualified students but also for O/L students who fail to proceed to A/L class.

It must be stressed that in Sri Lanka alternative avenues for tertiary education equivalent to university status have not been given adequate attention since independence. As such, non-university tertiary sector has not been expanded and developed appreciably. This area of training as I mentioned earlier has been neglected. It is therefore absolutely necessary for us to correct this situation early and urgently.

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The diplomates coming out of technical education institutions should have access to further education leading to a B.Tech. degree. There should be more and more opportunities for those who have enrolled in Technical Institutions to gain admission to Universities at the appropriate level for further training after a screening procedure in order to improve their skills.

Furthermore, the establishment of High Techno-

logical and vocational Institutions and most importantly the development of technological universities should be given utmost priority in the future.

It is also necessary to raise the professional level of technical officers and technologists at least up to the level of graduates and their service conditions should be considerably improved in order to attract better talents to these professions.

It is hoped that by making such attractive alternative avenues for technical education in the technology stream the enormous pressure and high competition presently being encountered at the university admission process could be considerably reduced. Further, technology graduates/diplomates will have more opportunities for employment satisfying human resource requirements of the country. There is a great demand for such skills in the world today.

It is therefore necessary that Sri Lanka develops a comprehensive action plan for human resource development in technical and technological fields as an urgent priority. Similarly, service conditions of technical and technological personnel should be raised to the level of university graduates in appropriate disciplines to make these professions attractive and rewarding.

All these measures mentioned above are of great national importance for the human resource development in this country if Sri Lanka wishes to make use of the opportunities offered by global advancement of science and technology at the present time.

In the technical education sector, most of the important institutions are now coming under the Ministry of Technical Education and Vocational Training. They are Tertiary and Vocational Education Commission (TVEC), Department of Technical Education and Training (DTET), Vocational Training Authority (VTA), National Apprenticeship and Industrial Training Authority (NAITA) and National Institute of Technical Education, Sri Lanka (NITESL). While TVEC is a standard setting and policy-making body, the NITESL is basically a centre for training trainers and curriculum development for technical education. This makes it easier for implementation of reforms.

It is also necessary to have a close cooperation with the Ministries of Education and Higher Education for coordination, which we propose to achieve through a high level coordinating committee representing all 3 Ministries - Education, Higher Education and Technical Education & Vocational Training, particularly to coordinate and sharing of resources wherever possible.

Extensive involvement of the private sector in providing diverse vocational training is certainly a good move by the Ministry of Technical Education and Vocational Training. This should be further encouraged and promoted in the future.

In the diversification of courses in technical education it is necessary to introduce novel programmes to satisfy needs of the country. Prior to this it is necessary to undertake a need analysis/survey for the technical and technological human resource needs in the next decade.

Such data will be useful: even some qualitative and speculative data may be useful in designing new courses. For this purpose you need to have a strong planning and research unit set-up in the NITESL, which can liaise with industry, Central Bank and other agencies to obtain relevant information. Particularly in HRD planning it is absolutely necessary to look ahead at least to a decade considering the present trends and extrapolating it to the expected future scenario to arrive at a decision.

Major areas of importance include IT, electronics, electrical, mechanical, materials technology, laboratory technology, bio-technology, and host of other new interdisciplinary fields which are emerging fast at the present time.

Finally, I wish to congratulate the graduands of the National Institute of Technical Education and wish them all the success in their future endeavours. I am certain that your services are required by the country and I do hope that you will serve the motherland with dedication and commitment contributing towards national development effectively.

I have no doubt that NITESL will pave the way for a new direction to technical education in Sri Lanka and provide an acceptable alternative avenue for high quality tertiary education with provision for upward mobility to degree level.

I sincerely wish that the NITESL will grow from strength to strength to be a model institution and a precursor to a most modern technological university in Sri Lanka.