

New Developments in Technical and Vocational Education in the Caribbean

Billie A. Miller

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In social democratic states industrial development envisages a collaborative role between technical vocational training, technological innovation and enterprise in the production of goods and services. It is against this background that I shall speak of some of the efforts and achievements of governments in the Caribbean region to promote technical and vocational education as a means of underlining their development policies. I shall also examine some of the pertinent issues on which there must be continuing discussion and dialogue if we are to achieve our objectives.

I shall be drawing on regional experiences to illustrate my arguments. However, since I have been intimately associated with the Barbados situation I shall crave your indulgence if I appear to cite a few cases of my own country's achievements.

Technical and vocational education in the Caribbean is a recent development when compared to similar education in the United Kingdom. Following the move towards independence in the Caribbean, a transformation took place which had the effect of changing educational systems generally and allowing for the inclusion of various aspects of technical education into the curricula.

In the pre-independence era, there was an almost total lack of technical and vocational education since we focussed on 'academic' education. There was however various forms of technical and vocational training, mainly through apprenticeship schemes. It was during the 1950s that it became very evident to Caribbean countries that if their development needs were to be met, then there would have to be a rethinking of the education system with the view to promoting a balance between academic and technical education and training.

During the period between 1950 and 1970 technical institutions were developed throughout the region as evidenced by the establishment of the College of Arts and Science and Technology (CAST) in Jamaica, The John Donalson Technical College in

Trinidad, The Barbados Technical Institute, Barbados Community College and the various technical colleges in the Eastern Caribbean.

The Barbados Technical Institute which was established in 1953 was the first institution to be designed specifically for the delivery of technical and vocational education. In 1962 technical education was upgraded in secondary schools with the building of Industrial Arts wings at ten of the island's secondary schools. This expansion has accelerated within recent years to the extent that facilities for some aspects of technical and vocational education now exist at all of our twenty-one government secondary schools. The facilities which were first provided in 1962 have been expanded significantly to provide for a more varied and upgraded curriculum. Discussions are currently in progress between the Barbados Government and the Third World Bank on an education loan project designed to provide added and approved facilities and equipment for technical programmes at secondary schools. The Barbados Community College and the Samuel Jackman Prescod Polytechnic and the National Training Board.

The areas of expansion which are very significant and applicable to the entire region, relate to the new initiatives which have been taken by Caribbean Governments to ensure that there are increases in the number of persons who are now afforded the opportunity to obtain a technical education.

As examples of new initiatives taken in the Caribbean, I draw your attention firstly to the HEART programme of Jamaica — HEART is an acronym for Human Employment and Resource Training — and secondly, to the Skills Training Programme of Barbados. This latter programme which was piloted with assistance from the Organisation of American States has now been implemented in other countries of the Eastern Caribbean. Throughout the region programmes have been developed including the revival of apprenticeship schemes, which are designed specifically to cater to the concept of on-the-job training. There are also day-release programmes at technical institutions and other programmes which provide industrial work experience.

The Caribbean is still very dependent on agriculture which has traditionally provided employment for a large number of people. While production in agriculture has increased over the years, the industry has become less labour intensive as mechanisation and other modern techniques are overtaking traditional methods — not only in Sugar but in non-sugar agriculture as well.

This trend of increased development, mechanisation and automation must continue in the Caribbean if our islands are to compete on equal terms in the international marketplace. As new demands are made of our educational systems it is imperative for us to turn out persons with creative skills who can adapt to the rapid change and movement of the employment market.

Caribbean governments share with other governments great concern over the prevailing high levels of unemployment. This problem has also become the concern of educational planners and practitioners especially those in the field of technical education. There are many factors which have contributed to this phenomenon, the chief among which experts claim is the worldwide recession. However, the changing patterns in the demand for labour should not be overlooked since this may be a contributing factor.

In the Caribbean we are making bold efforts to diversify our economies and to attract new industries to help in the solution of our unemployment problem. The Caribbean Basin Initiative is an important catalyst in our achievement of these goals. The new technology accompanying these industrial enterprises will have implications for our education and training systems. For instance emphasis will now have to be placed on design education if the new manufactured goods are to compete favourably in extra-regional markets.

Design education as a part of technical education was introduced into secondary schools by the Caribbean Examination Council (CXC) from the inception of its technical programmes. This examining body has included a section on design in all the Industrial Arts subject taken by Secondary Schools. There is however a need to continue this aspect of technical education beyond the secondary stage into the tertiary.

I am very happy to note that one of our technical institutions in Barbados has sought, through the Ministry of Education, funds from our national Training Levy Board for mounting a course in Industrial Design. Yet another has included an element of design in its electronics programme where students are taught how to use their knowledge of micro-electronics in order to automate machines to carry out functions directly related to national needs.

High technology equipment and systems required to sustain manufacturing processes suggest that emphasis would have to be placed on providing highly skilled technicians in instrumentation and industrial controls to maintain such equipment and to minimise dependence on foreign expertise. We are considering as a high priority the implementation of an integrated approach to training for the maintenance of high technology equipment. The objectives should not only be to import technology but fully to understand and become a part of that technology.

One of the inhibiting factors to the expansion of technical and vocational education in the Caribbean is the scarcity of trained technical teachers. The supply of such teachers has gradually increased over the years as the programmes in the existing institutions have developed but competition with industry still leaves us in a deficit position. In the early years considerable reliance was placed on imported teachers most of whom came from the United Kingdom. During the last two decades full use has been made of training programmes under bilateral and international agreements, namely, the United States Aid for International Development (USAID), the Canadian International Development Agency (CIDA), the Commonwealth Fund for Technical Co-operation (CFTC), the United Nations Educational and Scientific Organisation (UNESCO), the Organisation of American States (AOS) etc. These programmes have provided the trained cadres which have had a multiplier effect but the supply of suitably trained teachers to meet the needs remain inadequate.

At this stage of our development it is more appropriate for us in the Caribbean to accelerate the pace of

training technical teachers locally. This could best be achieved through the channelling of technical assistance from external agencies into the funding of experts to train teachers and curriculum developers. If technical teachers are to be trained at home then there is the need for some of the technical colleges in the region to be identified as institutions of excellence and be given the responsibility for the training of technical teachers. Reports coming out of Jamaica suggest that the College of Arts, Science and Technology (CAST) could easily be identified as such an institution. I would like to think that a merger of the relevant activities of the Barbados Community College, the Samuel Jackman Prescod Polytechnic and Erdiston College in Barbados could result in such an institution of excellence being established in Barbados to service the needs of the Eastern Caribbean.

The success of technical education cannot be based solely on the evidence of expanded facilities, improved opportunities, better trained staff or even better equipped administrators. The real test of success will be determined by the acceptance of graduates from the various institutions by employers. Over the years employers have relied solely on certification gained from recognised overseas bodies.

The City and Guilds of London Institute has served the region very well over the years in its training at the craft, advanced craft and technician levels. However, the need for local certification cannot be postponed any longer and this Institute might be persuaded to broaden the scope of its service to the area by assisting its institutions to develop the requirements for certification.

Reports from two recent conferences on technical education held in the region, the first in Nassau, The Bahamas, in 1982 and the other in St Christopher and Nevis in 1983, have indicated that considerable discussion has already taken place on the subject of local Caribbean certification and that specific recommendations have been put forward. I believe the Caribbean participants in this Conference are keen to continue discussions on this matter and I urge them to take the opportunity to add to what they have already achieved in bringing about the desired change.

There are persons in the Caribbean capable of producing the material needed for mounting local courses with local certification. Some such materials have already been produced by individuals and groups sometimes in collaboration with foreign persons or agencies. What is now required is greater motivation and involvement and it could be that this conference will provide that motivation.

The achievements of the Caribbean Examinations Council (CXC) provide ample proof that the problems related to certification of technical subjects can be successfully tackled at the regional level. The model of certification developed by the Council is unique and has received acceptance from renowned educational institutions in the United Kingdom, Canada and the United States of America. If the focus of this conference is to provide the opportunity for the United Kingdom and the Caribbean to learn from each other, then I consider it appropriate for the work of the Caribbean Examinations Council to feature very prominently in the discussions. Accreditation of technical subjects requires technical institutions to develop stronger links with industry, commerce and professional associations. These linkages do not only apply to institutions but to the Caribbean Examinations Council also, if that organisation is to provide certification at the higher levels. It may very well be that the role of the Caribbean Examinations Council in this matter, at least in the early stages, would be one of co-ordination rather than certification.

Individual countries must press ahead with the development of national certification and then the Caribbean Examinations Council through a process of moderation and co-operation with industry, commerce and professional associations could devise a system of regional accreditation.

The high cost of providing technical and vocational education together with the scarcity of resources raises the question of rationalisation of technical and vocational education, a subject which might well be one of the objectives of this conference. Rationalisation would lead to —

— The better use of scarce materials and personnel

- The more economic use of expensive equipment
- Common learning materials in the region
- Co-operation with industry and commerce
- Co-operation between institutions on a national, regional and international level
- Regional certification and accreditation.

At the fourth meeting of the Standing Committee on Ministers responsible for Education in the Caribbean Community, a decision was taken to convene a conference on rationalisation. That conference took place in St Christopher/Nevis and has made recommendations which the Caribbean should find very useful. In Barbados a policy decision taken by the Ministry of Education has resulted in co-operation among the secondary schools on the one hand, and on the other between the secondary schools and the tertiary institutions.

As part of the rationalisation process there is need to seek greater co-operation at the international level. The rate of technology development is so rapid that without such co-operation third world countries could find themselves lagging behind by many years. There are many bodies worldwide which have the desire to co-operate with third world countries in technical and vocational education. Two examples of co-operation deserve mention —

- the co-operation between the

Barbados Community College and St Clair College of Applied Arts and Technology in Canada in developing new curricula at the Division of Hospitality Studies in Barbados; and

- the collaboration between the University of the West Indies, the Jamaica College of Arts, Science and Technology and Huddersfield Polytechnic in the organisation and management of the Diploma of Education for teachers.

This conference could lead the way towards greater co-operation between institutions in the Caribbean and those in the United Kingdom.

Within recent years issues related to technical and vocational education have been engaging the attention of Caribbean Ministers responsible for Education at almost all of their meetings. At the Fifth Meeting of the Standing Committee of Ministers of Education held in Barbados in June 1984, the Ministers were asked to approve the recommendations of the St Christopher/Nevis Conference and also a number of project proposals. Because the Ministers did not receive clear answers to all questions raised, a Task Force to examine recent developments in technical and vocational education was appointed. It is significant that this conference suggests a link with the work of that Task Force. The members of that Task Force who are present should therefore find the deliberations of this meeting very useful in helping them to address some of the issues which they have been asked to consider.

It would be remiss of me not to recognise the valuable contributions made by the United Kingdom in the development of technical and vocational education in the Caribbean. In this regard I make special mention of the British Council whose contribution has been very significant throughout the years, especially in facilitating the placement and accommodation of Caribbean scholars in Britain. The Caribbean is most grateful for the assistance given in the past and look forward to continued co-operation in this vital area of our overall educational system.

Over the past few minutes I have sought to trace the development of technical and vocational education in the Caribbean, identifying as pre-eminent in our needs: the expansion of opportunities for training of teachers; the formulation of syllabuses adapted to the requirements of our several countries which will lead to local certification and accreditation with Caribbean employers and the rationalisation of limited resources allocated to this specific area of education. We have come a long way in remedying our shortcomings, but we still have a long way to go. There are serious retarding factors in the thrust ahead, not least of all the necessity to convince the Caribbean public and most of all Caribbean employers of the value of local certification and the capability of attaining comparable standards of technical and vocational skills as a product of our own education as are found in the more developed world.

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