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## ABSTRACT

In most countries of the Asia-Pacific region, technical and vocational education and training (TVET) are considered essential to economic development. As a result of growing awareness of the need to adapt TVET to meet the rapidly changing national, regional, and global economic requirements, TVET is in a period of transition and reorientation toward providing students with certain basic skills and knowledge required and supplying them with the tools needed to increase/update their knowledge through lifelong education. Throughout the region, realization of the crucial role of TVET in development of new skills and new economic structures and in regionalization and internationalization is increasing, and new ways of developing and improving the status of TVET are being sought. The following strategies, which were identified through a study of current issues in the countries of the Asia-Pacific region, have been recommended as ways of improving TVET and thereby accelerating technological change: prepare for an information society; align curricula with the needs of business/industry; develop articulation mechanisms; recognize prior learning; develop a system of broad-based work force training; emphasize TVET program quality; and recognize the key role of teachers in providing high quality TVET programs.  
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## CURRENT TRENDS AND ISSUES IN TECHNICAL AND VOCATIONAL EDUCATION IN ASIA AND THE PACIFIC

M.A. Qureshi

Technical and vocational education and training (TVET) is considered by most countries in the region as essential to their development as it is linked to training, job creation and employment. However, TVET is in a period of transition and re-orientation and there are continuous efforts in the region to provide students with certain basic skills and knowledge and to supply them with the necessary tools to increase and update their knowledge through the life-long education process. There is a particular need for new teaching methods and attempts are being made to utilize new information technologies in order to facilitate the acquisition of appropriate TVET competencies.

### Current Trends

There is a growing awareness in countries of the Asia-Pacific region for the need to adapt technical and vocational education to meet the rapidly changing requirements of the economy, at the national, regional and global levels.

A Increased co-operation between technical and vocational education authorities and those in industry and the market place has progressively become a factor in several systems for updating curricula, equipment and facilities, as well as in introducing new programmes and cost-effective delivery approaches.

B There is an increasing awareness in the region that new information technologies are essential to improve the effectiveness and scope of their TVET systems and to make them more flexible, more learner-oriented and continue to assist the life-long learning process.

C TVET curricula content is also evolving rapidly.

D Course designs are oriented more towards a combination of core and elective components as well as competency-based training, so that they are more responsive to the needs of rapidly transforming economies.

E Curriculum planning priorities in most countries now places the emphasis on the need to link education to enterprises, particularly in regard to orientation and the study of business economics for small entrepreneurship and life long education.

F There is a new trend in many countries to provide contextual learning and also integrate traditional disciplines into one single course (for example, «mechatronics» based on mechanics and electronics in Japan).

G There is increasing emphasis in some countries, particularly in Australia and New Zealand, on training of a multi-skilled work force; providing the job experience required for up-grading of skills; creating mechanisms for the recognition of existing qualifications and credit transfer; the introduction of competency-based training; and the promotion of retraining.

H In certain other countries such as the Republic of Korea and Singapore, training content is increasingly selected not only for its relevance to specific jobs but also for job clusters, as well as for the transfer to jobs from related areas in business and industry.

In addition to the above-mentioned general trends, some specific country initiatives in the region relate to:

- Development of National Competency Standards of a National Qualifications Framework in **Australia** and **New Zealand** to provide national consistent awards, to enable individuals undertaking TVET programmes in the private sector to receive nationally recognized qualifications;
- Recognition of Prior Learning (RPL) in **Australia** and the widespread application of flexible learning with programme delivery combining on the job training with formal studies in a number of fields, to facilitate acquisition of acceptable qualifications and the entry of the technical personnel into the job market;
- Introduction of a system of National Skill Standards (NSS) to improve the standing and quality of TVET programmes in **Bangladesh**;
- Use of DACUM as a curriculum development tool in **China** and introduction of Competency-Based Education (CBE) and the dual-system on a trial basis by adapting the German system;

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- Operation of TVE school managed enterprises in conjunction to educational programmes in **China**;
- Centrally directed, but locally administered, TVET system in **India** with a significant provision for vocational education within the framework of secondary education;
- Establishment of a system of secondary TVE colleges in **Indonesia** linked to a network of polytechnics to improve the quality of TVE programmes through renovation of curriculum, upgrading of teachers, administrative and supporting staff, facilities, and improved industrial links;
- Implementation of a dual system (system Gandha) in **Indonesia** of apprenticeship in order to better integrate tuition and structured on-the-job industry training;
- Increasing the flexibility of upper secondary education in **Japan** with technical and vocational education concentrating on industry groupings, such as business, fisheries, engineering and technology, nursing with the aim of changing the attitude of students in their career selection and encouraging the convergence between vocational and general education;
- Introduction of multiple skills training in **the Republic of Korea** to facilitate the transition from a production-cost oriented economic system to a technology oriented economic system;
- Introduction of the concept of demand-driven training as opposed to supply-driven training in **Pakistan**;
- Reconstruction of the TVE system in **Viet Nam** to meet the needs of a changing society with a major policy thrust on targeting improvements in the quality of TVE provision, to improve the course curricula and training methods to make the system more flexible.
- Improving the quality of technical teachers in **Thailand** to improve the quality and output of technician/technology education;
- Encouragement of the private sector to undertake a major role in providing technical education and training in **Thailand**.
- *Preparedness for Information Society*: The most important singular issue for TVET is to take advantage of the possibilities made available by new information and communication technologies. TVET can, in this way, facilitate the speeding up of technological change, particularly at the work place and for employment and job creation.
- *Curriculum*: It is absolutely essential that curriculum development be aligned to the needs of industry and business in order to create harmony at the national, regional and global levels on a long-term basis. It is also essential that a wider TVE curriculum is designed and delivered, in conjunction with industry, preferably using new information and communication technologies.
- *Articulation* is another important and significant factor which affects the status of TVE. Lack of articulation is considered as a dead end and has the effect of impeding the development of individuals in their working careers. The Australian and New Zealand systems are seeking solutions for articulation mechanisms.
- *Recognition of Prior Learning (RPL)* is intimately interlinked to articulation. Prior learning can be formal or non-formal and lead to the acquisition of competencies which could be considered as educational. This situation often arises when seeking to obtain credit for TVE studies from an educational institution and in order to solve this problem, the intervention of governments may be necessary to encourage those concerned to seek a methodical solution. Several good examples of RPL are available in Australia and New Zealand. A Regional Convention on Recognition of Studies in TVET could assist the development of new practices and methods for alternating school with work experience.
- *Broad Based Training*: With the advent of a global economy which will open borders and develop trade among the countries and the regions, the need to create a broadly trained workforce of all levels is becoming increasingly necessary. It is also desirable that this work force does not specialize too early in the initial training cycle.
- *Quality* has a direct impact on TVET programmes. The relevance of curriculum, the efficiency and effectiveness of course delivery and student management, the provision of necessary equipment and resources, and the educational environment are as important as elsewhere, in spite of the efficient use of resources obtained in competition to other sectors.
- *Teachers* play a key role in providing quality TVET programmes. TVET teachers must have a first-hand knowledge of the world of work process in their teaching specialty. Teacher's salaries should be comparable to those earned in industry and this factor plays a crucial role in their recruitment and may prevent their leaving the situations for more lucrative jobs in industry.

### Issues in TVET

There are a number of issues in the development and improvement of TVET in the region affecting its image and status which are still a matter of major concern in most of the countries. TVET has a crucial role to play in the development of new skills and new economic structures, as well as their regionalization and internationalization. Each country has a great potential for employment and job creation, which must be well appropriately conceived and implemented through the provision of adequate education, especially TVET. The following strategies, based essentially on the study of current issues in countries of the region, could have an impact on development, structural adjustments and acceleration of technological change through technical and vocational education:

As in other regions, many countries in Asia and the Pacific have demonstrated considerable innovation to cope with the changing demands of the labour market by developing and implementing a number of significant policy issues. The delivery of TVET is the area undergoing the most rapid transformation in order to make use of those possibilities provided by information superhighways and communication

technologies. Undoubtedly, there is still room for further improvement and initiative in the use of technologies.

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
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