CROSS BORDER ACTIVITIES TO STRENGTHEN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING SYSTEMS IN THE INFORMATION ERA

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Abstract: This presentation aims to consider issues of cooperation in the international arena which are raised by the premise that technical and vocational education and training (TVET) is a critical and integral component of lifelong learning. The paper outlines the objectives and strategies of UNESCO’s UNEVOC Network and challenges the audience to consider what strategies they can encourage in their own countries and regions that will facilitate international cooperation and subsequently strengthen TVET systems. Issues which will be discussed will include maximising national capabilities through training and cooperative activities such as articulation and recognition of courses across national borders, identifying competencies which are common across countries in regions, and identifying possible cooperative training activities etc. Informing the presentation are the outcomes and recommendations of the UNESCO Second International Congress on Technical and Vocational Education (Lifelong learning and training: a bridge to the future) held in Seoul, Republic of Korea in April 1999. These recommendations are the basis and the core of the UNESCO International Program on Technical and Vocational Education and Training which the General Conference of UNESCO authorized the Director-General to launch in November 1999 and fall into three key areas: improving Member States’ TVET policy-making capacity, assisting Member States’ institutional capacity-building and enhancing international co-operation.

TECHNICAL VOCATIONAL EDUCATION AND TRAINING AND LIFELONG LEARNING IN THE INFORMATION AGE

This presentation aims to consider the international issues which are raised by the premise that technical and vocational education and training (TVET) is a critical and integral component of lifelong learning. Also it explains how cross border activities carried out under the auspices of UNESCO/UNEVOC have contributed to strengthening of technical and vocational education systems in the Asia Pacific region. During the late 20th century, all sectors of education have been faced with issues surrounding the concepts of ‘lifelong learning’ and the complexities surrounding
the ‘information age’. None more so than the technical vocational education and training sector as the nature of work changes; the education sector which in some countries sits between the compulsory education years (K-12) and higher education, in others, forms part of the upper secondary education years.

The Delors Report (Learning: the Treasure Within 1996) emphasised and concluded that education must be supported by four pillars; learning to know, learning to do, learning to live together and learning to be. As Colin Power stressed at the recent UNEVOC Congress in Seoul, ‘the information society of the 21st century will put greater value on learning to do, on the skills and competencies needed to put knowledge into action…Today, more than ever before, technical vocational education and training has become a necessity not only for young people who will have to prepare themselves for the challenges of the next century, but also for the entire population of each country so that every individual can play an active role in the world of the 21st century that seeks to narrow economic and gender disparities while preserving the integrity of the environment.’ (UNESCO 1999: 88)

Interwoven with these personal imperatives are the demands of enterprises and industries which require workers to have skills which will enable them ‘to be smarter, faster, more effective, and more efficient, less environmentally damaging, produce less waste and to waste less time’, to make use of new technologies, new ways of doing business and the effects of globalisation. (Bartram 2000: 1)

These demands affect not only young people. In the developing world these additional demands are being placed on those who have not had access to basic education and, for the developed world, on those who may be already in the workforce or those who due to work restructuring are facing career changes. In the words of the previous Director General of UNESCO:

To keep pace with changes in work organisation and production technology, people need to increasingly renew and upgrade their skills. This calls for the integration of technical and vocational education into lifelong learning systems. Indeed, technical and vocational education must articulate more effectively with secondary, higher and adult education. In the developing world, particularly in rural areas, providing basic skills education is still the challenging task. The promotion of literacy alone, however, is not sufficient. Experience demonstrates that a combination of literacy education and vocational skills learning is an effective method of empowering people to improve their standard of living. The inclusion of vocational subjects in the general education curricula equips students with basic technological and vocational knowledge and awareness. The integration of vocational skills training in general education is also likely to contribute towards gender equity in the technical professions. (UNESCO 1999: 77)

These issues are particularly pertinent in the diverse Asia Pacific region which contains the largest proportion of the world’s population which includes the most disadvantaged in the world; an area which is comprised of both the smallest and the largest countries in the world, many of which are struggling to provide basic infrastructures to support their peoples, let alone sophisticated information technology.

UNEVOC

UNESCO’s response to these demands has been the establishment of UNEVOC, UNESCO’s International Project on Technical and Vocational Education. The project is dedicated to developing and improving technical and vocational education in UNESCO’s Member States with a focus on
information exchange, networking and international cooperation. The following information about
the project is based on the UNEVOC web pages (UNEVOC 2000).

During 1987 UNESCO held its first International Congress for the Development and Improvement
of Technical and Vocational Education in Berlin, Germany. Strong support was shown by the
member countries present to establish a mechanism for the international exchange of information on
technical and vocational education. Subsequently, the General Conference of UNESCO, at its
twenty-fifth session in 1989

- ‘adopted the Convention on Technical and Vocational Education. This standard-setting
  instrument provides a coherent set of concepts and guidelines for the development of
technical and vocational education in Member States. It pays particular regard to the
assuming of public responsibility for framing policies and defining strategies in order to
ensure that technical and vocational education is considered to be an integral part of the
education system.
- invited the Director-General of UNESCO to carry out a feasibility study on the
  establishment of an International Centre for Technical and Vocational Education.

This feasibility study recommended that UNESCO’s activities in technical and vocational education
should concentrate on technical and vocational education as a component of the overall education
system. Based on that feasibility study, which was completed early in 1991, the General Conference
of UNESCO decided, at its twenty-sixth session in 1991, to launch the International Project on
Technical and Vocational Education (UNEVOC). This decision was confirmed by the General

In accordance with that decision, UNEVOC is designed

- to contribute to the development of systems of technical and vocational education
- to promote infrastructures in research, development and planning
- to facilitate information and communication in these fields.

STRUCTURES AND MECHANISMS

UNEVOC is carried out under the responsibility of the Education Sector of UNESCO supported by
an International Advisory Committee which advises the organization on the preparation and
implementation of the UNEVOC program. Many activities within UNEVOC are executed on a
regional basis and UNESCO’s Regional Offices play an important role in the implementation of the
project:

- **Africa**: Regional Office for Education in Africa (BREDA)
- **Arab States**: Regional Office for Education in the Arab States (UNEDBAS)
- **Asia and the Pacific**: Principal Regional Office for Asia and the Pacific (PROAP)
- **Latin America and the Caribbean**: Regional Office for Education in Latin America and
  the Caribbean (OREALC)

Following the decision on UNEVOC taken by the General Conference in 1991, the Government of
the Federal Republic of Germany offered to host an Implementation Unit in Berlin. Germany has
provided premises and equipment for this Unit (opened in 1993) in addition to dedicated staff under
the leadership of Mr Hans Kronner.
An international team evaluated the UNEVOC project in 1996-1997, resulting in a set of recommendations to the Director-General of UNESCO regarding the ongoing development of the project.

THE UNEVOC WORK PLAN FOR 1998-1999

As an indication of the work carried out under UNEVOC, the following activities were carried out during 1998-1999:

- International exchange of ideas, experience and studies on policy issues
- Strengthening of national research and development capabilities
- Facilitating access to databases and documentation; strengthening the UNEVOC Network.

**International exchange of ideas, experience and studies on policy issues**

This area provides opportunities for the Member States to exchange views on policy issues in technical and vocational education and aims to contribute to reducing the gap between the industrialised and developing countries.

Key areas which formed the focus for this activity included:

- Raising the status of technical and vocational education
- Coordination of policies for education, training, and related activities
- Orientation of education towards the world of work
- Linkage between technical and vocational education institutions and the world of work.

The key actions for this program area were based on the recommendations of the evaluation of the UNEVOC Project in 1996-1997 including:

- a draft strategy for UNESCO’s future role in the development of technical and vocational education (to become after the 1999 General Conference meeting, the Long Term Program on Technical and Vocational Education).

**Strengthening of national research and development capabilities**

Key areas which formed the focus for this activity included:

- International transfer and adaptation of curricula;
- Promoting innovative concepts in technical and vocational education;
- Providing equal access of girls and women to technical and vocational education;
- Staff development.
The key actions for this program area in the Asia Pacific region included:

- regional curriculum development projects, for example, the design of curricula on entrepreneurial skills for small business through workshops in Australia, India and China. This curriculum has also now been implemented in China. training of and recruitment standards for teachers and trainers in technical and vocational education
- advisory, project formulation and other consultancy services to identify and prepare project proposals for submission to funding agencies.
- development of the capacity of UNEVOC Centres to contribute to planning, development and research in technical and vocational education on the national level, supported through training workshops and small-scale projects.
- the feasibility of developing a training model for the Asia/Pacific region, explored in an expert meeting convened in Pakistan.

Facilitating access to data bases and documentation; strengthening the international networks

The aims of this program area included:

- to enhance UNESCO’s clearing house function in technical and vocational education,
- to facilitate access to relevant information,
- to facilitate interaction and to strengthen co-operation in the UNEVOC network.

Workshops to provide training to facilitate the exchange of TVET information and documentation and to identify the infrastructure needed to facilitate communication between existing national and regional institutions in technical and vocational education were held in the Asia Pacific and African regions. The establishment of databases in Australia (the inclusion of UNEVOC and the International Labour Office (ILO) Asia Pacific Skills Development Information Network (APSDIN) data in the VOCED database, hosted by the Australian National Centre for Vocational Education Research) and Canada (Canadian UNEVOC Centre at the University of Manitoba) have been concrete outcomes of the actions taken during this period.

Across the world, the UNEVOC network includes more than 160 institutions from 110 Member States. In the Asia Pacific region the network includes 47 institutions in 30 Member States. Co-operation among these institutions has been encouraged to:

- improve the flow of information
- share experiences, problem solving ideas and research results
- enhance international co-operation.

Strategies to achieve these outcomes have included the publication (in print and electronic forms) and dissemination of

- the quarterly UNEVOC Info in both English and French, Arabic and Spanish. This publication supports the Network with relevant information and also serves as a communication instrument among the participating institutions and experts.
- studies and document on technical and vocational education
- the Directory of UNEVOC Centres and UNEVOC Associate Centres
The clearing house function of UNEVOC has been facilitated through the development and management by the Berlin Implementation Office of:

- the UNEVOC Web Site
- an Internet e-mail Document Server which facilitates the retrieval of documents
- an electronic mail server which provide users with an interactive facility for communication and exchange of information with one another and with other interested professionals
- Internet seminars to support UNEVOC Centres in their efforts to utilise modern information and communication technology for international communication and information retrieval, in particular Electronic Mail and the WorldWideWeb.

Co-operation among UNEVOC Centres has been promoted through the following activities:

- assisting UNEVOC Centres in finding appropriate partner institutions and sponsors from the private sector for joint activities
- encouraging bilateral and multilateral research and development projects
- facilitating study visits, fellowships, and internships for experts in the UNEVOC network to gather experience in other environments within that network, including Regional Offices and UNEVOC Berlin
- encouraging continual dialogue and information exchange among UNEVOC Centres.

**UNESCO SECOND INTERNATIONAL CONGRESS ON TECHNICAL AND VOCATIONAL EDUCATION**

UNESCO’s Second International Congress on Technical and Vocational Education (Lifelong learning and training: a bridge to the future) was held in Seoul, Republic of Korea in April 1999 and has been described as a landmark event in the development of global technical vocational education and training. The objective of the Congress was ‘to give its Member States an opportunity to discuss how the field of Technical and Vocational Education and Training (TVET) should adjust to the needs of a rapidly changing world. Since globalization and dramatic developments in the information and communication technologies are expected to be features of the early years of the twenty-first century, it was felt that TVET must adapt to adequately prepare people for the world of work and responsible citizenship’. (UNEVOC 2000)

The Congress identified the major challenges to education at the beginning of the 21st century and the discussions addressed the following themes:

- Challenges to education and training: the changing demands of the world of work
- Improving systems for education and training throughout life
- Reforming the education and training process
- Promoting access of special groups to technical and vocational education and training
- The changing role of government and social partners in technical and vocational education and training
- Enhancing international cooperation in technical and vocational education and training.

The Seoul Congress formulated a set of recommendations for upgrading TVET that were listed under the caption Technical and Vocational Education and Training: A Vision for the Twenty-first
Century. These recommendations are the basis and the core of the UNESCO International Program on Technical and Vocational Education and Training which the General Conference of UNESCO authorized the Director-General to launch in November 1999.

OBJECTIVES FOR THE FUTURE

The International long-term program for the development of TVET includes the following objectives and strategies.

Objective 1: Strengthening TVET as an integral component of lifelong learning

TVET policies need to be redesigned in order to respond to the varied needs of all members of society, and to help them achieve personal and social development. UNESCO's activities in this area aim at:

- Infusing into general education curricula appropriate content for the young to understand the nature and process of the world of work
- Improving the links between TVET and other sectors of education, and developing articulation between education and training systems
- Fostering the role of governments and the involvement of all stakeholders particularly the private sector.

Objective 2: Orienting TVET for sustainable development

TVET should play a pivotal role in developing a new generation of individuals who must face the challenge of contributing to sustainable socio-economic development. The Program will be implemented with the aims of:

- Ensuring that TVET is an integral part of each nation's sustainable development agenda, and its education and human resource development strategy
- Incorporating environmental issues into all TVET teaching and learning situations
- Providing TVET in the service sector to ensure environmentally sound economic growth and employment creation.

Objective 3: Providing TVET for all

Besides preparing people for the world of work, TVET is expected to be an instrument for social cohesion and integration. UNESCO supports its Member States’ efforts to make TVET programs comprehensive and adequately inclusive. UNESCO will aim to achieve the following:

- Promoting special initiatives and efforts to ensure equal access to TVET for girls and women
- Making TVET programs available to the unemployed and various marginalized groups
- Reorienting vocational guidance and counselling to reach out to all members of society, and promoting flexible access to learning and training throughout life.

These objectives will be implemented towards the achievement of these objectives by adopting three key strategies:
**Improving Member States’ TVET policy-making capacity**

The following activities will be undertaken to assist Member States’ efforts in formulating policies for the renovation and integration of TVET as a component of their national development agenda:

- Providing national policy-makers with tools of analysis, comparative information, statistics and best practices in TVET delivery models
- Conducting international, regional and sub-regional meetings for policy-makers, professionals and researchers to exchange views
- Identifying the factors that determine the quality and relevance of TVET with a view to improving its effectiveness, and establishing assessment standards and systems to ensure that TVET is provided in line with international standards.

**Assisting Member States’ institutional capacity-building**

UNESCO will undertake the following activities to strengthen TVET institutions’ capacities in research, development and training:

- Providing guidelines and supporting national and regional activities for the preparation of TVET teaching and training personnel
- Assisting the Member States to use information and communication technologies as a tool for teaching and learning
- Enhancing the ability of Member States to transfer, adapt and customise programs and curricula, and assessment and evaluation techniques to local needs.

**Enhancing international co-operation**

The program will aim to launch major initiatives towards transforming the delivery of technical assistance and fostering joint action and common approaches by the international agencies in their support of TVET by:

- Establishing close co-operation with other United Nations agencies, donor institutions, development banks and NGOs
- Initiating international events that would draw public attention to TVET
- Advocating TVET as an integral part of the development agenda of bilateral and multilateral donors and financial institutions.

**Implementation**

The Program will be implemented by UNESCO Headquarters (Education Sector), relevant field offices, particularly those in Bangkok, Beirut, Dakar and Santiago, and a new UNESCO International Centre for Technical and Vocational Education and Training in Bonn, Germany.

The current UNEVOC Network will be transformed into an international framework for common support and co-operation in TVET, and each UNEVOC Centre will be encouraged to strengthen national networks. UNESCO will confer the title of Regional Centre of Excellence on a few selected UNEVOC Centres to facilitate regional co-operation, and will support these centres in their networking and program activities.

To achieve these outcomes, it must be recognised that UNESCO cannot act alone and that ‘while UNESCO is the leading agency in the United Nations System in the field of education, many other intergovernmental and non-governmental agencies also deal with various aspects of education and
training. In planning and implementing its program of technical and vocational education, UNESCO will seek to develop close co-operation with other partners giving the program an interagency character...(for example) UNESCO and the ILO have agreed in principle to formulate a joint policy framework in technical and vocational education and training with the goal of strengthening the currently ongoing co-operation between the two Organisations in this field’.

(UNESCO 1999: 33)

ISSUES THAT NEED TO BE ADDRESSED

The development of the UNEVOC Network is a strong beginning to strengthen the role of TVET as a key component of lifelong learning, personal satisfaction and goal achievement for the world’s population. The objectives and actions of the Network are also an excellent example of how cross border activities can be carried out to strengthen technical and vocational education systems. However there still remain key issues which need to be addressed and taken into account in the role that UNEVOC can play. These include:

- Adaption of TVET programs to meet the skills requirements, employment and development status of member countries
- Redesign of TVET programs to meet these needs
- Influence of socio-econmic conditions (UNESCO 1999: 89)
- Funding for TVET from various sources (government and non-government agencies, employer and learner)
- Overcoming barriers to participation in TVET
- Creating opportunities for participation by minority groups
- Skilling, and recognition of skills, of TVET teachers
- Recognition of the value of TVET
- Discrepancy between supply and demand
- Partnerships between education and industry
- Appropriate curriculum models
- Appropriate research (UNESCO 1999: 57–8)

CONCLUSION

Colin Power, immediate past Deputy Director General of UNESCO, provided a powerful message in his concluding state at the UNEVOC Congress in Seoul that is appropriate to conclude this paper. He stated that:

We strongly believe that the provision of technical and vocational education and training aiming to prepare qualified technicians and skilled and semi-skilled workers should be an essential component of the development agenda of all countries. TVET is a bridge to the future, but there must be an employment road to which it leads, otherwise we create further problems. Thus we need not just a revitalised and more coherent TVET program, but a new vision for TVET and employment – we need new models of TVETE (technical vocational education and training and employment), linking education, training, employment and social welfare, nationally and internationally. (UNESCO 1999: 89)
What are your strategies to achieve this?
What will be your role in developing international partnerships?
How can you encourage international cooperation and subsequently strengthen TVET systems in your region?

REFERENCES


CORRESPONDENCE

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