An international congress produced discussion and debate regarding the factors that will shape technical and vocational education in the new century and the new millennium. Speakers declared that the 21st century will be an era of knowledge, information, and civilization. According to the speakers, key features of the 21st century will include globalization, competitive pressure, new technologies, the growth of the service industries, increases in leisure and tourism, increases in longevity, and increasing anxiety and turbulence. The speakers also asserted that the world needs a new paradigm for social and economic development that is more human-centered, inclusive, environmentally friendly, developmental, empowering, socially transforming, and technological and that involves self-reliance and learners shaping their futures with continuous independent learning. Speakers at the congress noted the session's landmarks, including an emphasis on the necessity of a commitment to education and training and the removal of the barriers between academic and technical and vocational education. Challenges include the debt levels of developing countries, dropout from the educational systems of developed countries, the need for ethical discussion of technological advances, the need for synergy between academic and vocational education, and the appropriate mix of funding for technical and vocational education among government, employer, and learner. To address these challenges, many partnerships will be needed. Among the energy sources identified for moving the situation forward are political commitment, vision, leadership, lifelong learning, curriculum reform, new technologies, and international cooperation, and the potential contributions of young people. (KC)
Rapporteur-General’s Oral Report
Kenneth Wiltshire

Presented at
Lifelong Learning and Training: A Bridge to the Future
International Congress on Technical and Vocational Education
(2nd, Seoul, South Korea, April 26–30, 1999)
Mr President,
Distinguished participants and observers,

Our Congress has produced a rich discussion and debate regarding the factors which will shape Technical and Vocational Education in the new century and millennium. Please allow me to highlight some of the key elements of our deliberations.

**Visions of the 21st century**

We have been treated to a number of significant visions of what the next century will look like. The President of the Congress, Minister Mr LEE Hai-chan, launched our thoughts with these words:

*We are about to step into a new era of unprecedented changes as national boundaries disappear and globalisation proceeds. Future jobs will require more diverse vocational abilities and knowledge, calling for educational reform and a guaranteed system of lifelong learning for all.*

Then Mr KIM Dae-jung, the President of the Republic of Korea, in a speech to Heads of Delegations at the Presidential Palace, made this prophetic observation which has permeated the whole of our discussion at the Congress:

*The twenty-first century will be an era of knowledge, information and civilization.*

The key features of the 21st century predicted by many speakers included:

- Globalization.
- Competitive pressure.
- Reducing of international boundaries.
- The mobility of capital and labour (a point stressed in the preparatory meeting held in the Asia-Pacific region).
- Increased trade flows through liberalization and the internet. The increasing importance of the World Trade Organization.
- New technologies, especially in information and communication.
- The growth of the service industries (emphasized by Professor Colin Power).
- Increases in leisure, culture and tourism (a theme strongly emphasized in the preparatory meeting in Europe).
- Increases in longevity. This point was stressed in the communique issued by Ministers after their formal meeting during the Congress. It is especially apt in the International Year of the Older Person.
- Increasing anxiety and turbulence including that stemming from changes in
occupation (a point made forcefully and effectively by Mr Schmidt of Germany).

- The future of education itself which, according to the Delors report on education for the twenty-first century, should be built around four fundamental pillars:
  
  * Learning to know;
  * Learning to do;
  * Learning to live together;
  * Learning to be.

At this Conference, we have decided that the foremost attribute of the next century will be learning to learn. Mr Schmidt called it independent learning.

Interestingly, as this Congress has proceeded we have been faced with images, seemingly contradictory, which will impinge upon the next century. Consider the rich cultural milieu provided to us by the colourful and beautiful dancers and drummers who have entertained us, whilst at the same moment in the foyer of the Congress Hotel a piano has been constantly playing automatically, with no person at the keyboard. No doubt the twenty-first century will have many paradoxes of this kind, both opportunities and challenges, symbols of the future.

**A new paradigm**

Out of our consideration of the trends which are looming as we face the next century and millennium has come the unmistakable signal that the world needs a new paradigm for social and economic development.

In the words of the Prime Minister of Korea:

*With the emergence of globalization and the information era, the international community has witnessed a tremendous paradigm shift. The knowledge-based society is at hand which requires every citizen, in every field, to be equipped with the latest knowledge and vocational skills.*

So what should the new paradigm look like? These were some of the key words used by various speakers throughout the Congress:

- Developmental, not development;
- Human centred;
- Environmentally sound sustainable development;
- Culture of peace;
- Social transformations;
- Inclusivity;
- Empowerment;
- Harnessing of technology;
- A new form of entrepreneurship and self-reliance;
- Learners as navigators shaping their future;
- Continuous and independent learning. (It was said at this Congress that success in TVE can be measured according to the degree of its success in creating opportunities for continuous independent learning.)
Taking into account this bare outline of a new paradigm, a number of responses have been foreshadowed. The key words of this response which have been mentioned include:

- Flexibility;
- New modalities;
- Lifelong learning and all it signifies;
- Radical thinking such as that from an industry perspective (Alcatel told us that the 21st century will need high potential not high competencies not competency but potential for competency; capability, curiosity, willpower);
- A new learning culture. (In Australia we believe that a nation, like an organisation, needs a learning culture to be productive and competitive, and to care for the well-being of its people, and a vibrant training culture is a key factor in attaining that goal.)

In the words of the Director-General of UNESCO, TVE and the skills it imparts will empower youth and adults to play a part in the new development paradigm.

**Congress landmarks**

During the course of our deliberations a number of highly significant points have been made, many of them seminal observations indicating profound changes for a new strategy.

Many speakers have commented on the immense progress which has been made since our last Congress some 12 years ago, with the growing recognition of the importance of TVE and its contribution to economic and human development. At the same time we have been reminded that not all countries have enjoyed these benefits and much still remains to be done, especially in developing countries.

We have had displayed before us the amazing record of our host country, Korea. Some 100 years after the launching of TVE in this country we see Korea about to perform its second modern miracle and the leaders have told us that in their sustained performance, through both good and adverse times, investment in education and training was a key factor.

The sheer documentation for our meeting has contained a great deal of lateral thinking - the reports of the preparatory regional meetings, the reference documents, the basic working document, and the keynote speeches. We are immensely grateful for the efforts of those responsible.

The President of the Republic of Korea told us, "the ability of a person is no longer evaluated by which school he or she has graduated from. A person's ability is determined by his or her knowledge."

The press release from the Ministers made the highly significant observation that the distinct division between vocational education and vocational training is of no use and these two separate systems need to be integrated functionally and physically to establish a more effective human resource development approach. This echoed the very strong plea from Dr Al-Masri for education and training to be regarded holistically which, he said, was the key to lifelong learning. The Director-General spoke of the interconnectedness of all aspects of
In this spirit, the contribution of Saudi Arabia was particularly pertinent as it challenged us to develop a holistic system of education and training that dissolves the boundaries between academic/vocational, knowing/doing, head/hand, theory/applied, and school/work.

Training is an investment, not a cost, we were told. It is as much a social as an economic investment. Indeed, social chaos may be the alternative, we were reminded by Dr Schmidt and Dr Bahaa el Din, the Egyptian Minister.

The Director-General of UNESCO strongly stressed this theme of TVE being part of a preventive approach, to achieve a culture of peace, a cleaner environment, eradicate illiteracy, and empower people, TVE is crucial, he said. "Education is the single most powerful weapon against poverty," and he called for the interconnectedness of all forms of education for each person. The backbone of a nation, he claimed, was its technical and professional capacity which needs social investment.

Three areas of particular significance, but which are so often overlooked, were presented before us and their needs highlighted. They included the dimension of the informal sector (stressed in the African preparatory meeting), the importance of the rural sector (effectively presented by the Chinese intervention), and the complexities of the newly emerging market economies and new democracies, especially in Central Europe and Asia (well emphasised by Hungarian interventions).

In the Nordic countries TVE aims to involve young people in democracy, give them generic skills, and create the bridge from TVE to the world of work. Finland argued that all young people should have a chance of access to TVE. According to the Nordic countries, TVE includes competence building beyond the acquisition of work related skills, a truth that reminded me of a wise saying from my school principal that "education is what is left after you have forgotten everything that you were taught." It also reminds us of that famous saying, said to be a Chinese proverb: "Give a man a fish and you feed him for a day, teach him how to fish and you feed him for a lifetime." After this Congress we can now add: show him where to fish and you enhance his productivity and his standard of living.

The vital importance of vocational guidance and counselling was an element of many interventions in our discussions. It came particularly from the Commission considering TVE for All, and the message was that it must be targeted, must not rely on information technology alone but embody true personal guidance, and must be accessible in the places which most people visit, not solely in educational institutions.

The Arab states, in their preparatory meeting, reminded us of the importance of nations having legislation, policy and strategies for TVE.

The deliberations of the NGO forum associated with the Congress reminded us of the vital but often undervalued contribution which NGOs play in education including TVE.

Many speakers have highlighted the need to raise the status of TVE, and lift its image, and achieve parity of esteem for it with all sectors of education including universities. Support from the media was strongly recommended in the Latin-American preparatory
meeting; this may require a concerted marketing effort accompanied by a simplification of
the sector. Most people know what a school is, and what a university is, but TVE is often
perplexing to them with its vast array of levels, courses, modules, providers, and
particularly its complex language which is so often riddled with acronyms. Consider this
imaginary conversation which an outsider to our sector might hear:

_EFA needs TVE emphasizing HRD, especially in LDCs, with the help of
NGOs, and the OECD, ILO, ADB, UNEVOC, through the use of ICT, funded
through a P/P, not forgetting ADED, in a recommendation through the
DDG-ED to the DG, telling him that TVE is really TVET and should become
TVETE._

Professor Colin Power did us a great service in reminding us that, despite the marvels
of the new technology we must never lose that magical personal relationship between teacher
and learner.

**Challenges**

There have also been a significant number of challenges put before us at the
Congress, most of them issues or items that are unresolved, or have been neglected, and will
need considerably more attention before we can face the next century with confidence.

The Director-General of UNESCO reminded us starkly of the seemingly inescapable
constraints which many developing countries are facing as a result of their debt levels, their
unacceptably high rates of illiteracy, the large numbers of drop-outs from the education
system, and the scourge of conflict and war. We were also reminded of so many of the
population who are marginalized including those living in the midst of urban as well as rural
despair.

We have been marvelling all week at the capabilities of modern technology which is
conquering outer space and cyberspace, and raising possibilities such as genetic engineering.
Yet where is the value framework, the ethical dimension to guide these scientific and
technical developments? And technology is not always necessarily beneficial for education
and training - "hands on" can often mean "brains off".

The prospect has been raised at this Congress of a necessary synergy between general
and vocational education, between education and training, but we are not clear yet what form
this can take. Is it to be total integration, or co-ordination, or recognizing each other's
passports and visas at the borders of the education sectors? Clearly there is a continuum, a
spectrum, which confronts all systems: the challenge is how to make it holistic. In my
country Australia we now have very many students proceeding from university after
graduation to TVE to acquire skills and competencies to make them more employable.
Indeed, there are a growing number of students undertaking a university degree and a TVE
diploma or Certificate at the same time. These are all signs of a need for seamless pathways
on the journey of lifelong learning but authorities need to ensure they present as few
obstacles as possible. This means the closest possible interface between school, TVE and
university.

Other key issues which have arisen during the Congress include:
• The appropriate mix in the funding of TVE between government, employer, and learner. The World Bank raised the question of who should pay for TVE, whether training levies can work, and stressed that the clients of TVE are very different, and what works in one economy may not work in another.
• How to break down barriers that produce gender discrimination.
• How to really widen the ambition of the disabled and to create the opportunities for them to reach their full potential and become employed.
• What should be the qualifications and skills required of a TVE teacher? How much pre-service should be in the workplace and on the campus? What is the nature of the professional development that they require?
• How do we really reach the marginalized? As France expressed it, how can TVE be made accessible to all?
• What strategies need to be employed to address declining retention rates?
• What is the appropriate balance between policies to address the supply and the demand side (a key feature of Dr Al Masri's presentation. It was also featured by the Inter-American Development Bank which spoke of a mismatch between supply and demand, including schools which provide the wrong product, and TVE that should be driven more by demand.)
• What models are available to create a partnership between the learning environment and the working environment, the school and the broader community (a point stressed strongly in the intervention of France)?
• What curriculum models are best used to introduce vocational education into school systems?
• What research do we need to commission to understand better the key moments and choices which confront the learner on the journey of lifelong learning, an especially poignant issue for the disabled or disadvantaged.

**Partnerships**

To address all of these challenges it is clear that in the next century we are going to require many partnerships, the Yin and the Yang of human existence translated into the world of TVE. Perhaps one of the greatest successes of this Congress has been a true willingness on the part of the participants to identify these necessary partnerships and to make them work. We need partnerships to address:

• A common philosophy to guide our approach.
• A set of shared values on which to base a new holistic curriculum and inclusive framework for participation.
• A common vision.
• A declared strategy.
• An holistic approach to lifelong learning.
• A synergy between the economy and the education system.
• A set of new relationships between TVE and industry. (This was stressed in the Asia/Pacific preparatory meeting and in the roundtable on TVE links with enterprises and was so amply demonstrated by the effective participation at the Congress of the World Bank, Alcatel, the Inter-American Development Bank. They demonstrated a keen understanding of TVE systems and presented us with constructive ideas and offers of assistance. Their contribution was a highlight of the Congress because it signalled the beginning of a new partnership which will be essential in the next century.)
We heard a great deal as well about the need for new partnerships between
- Development and the environment.
- Basic education and higher education.
- Education and training.
- Government sector and private sector (expressed in the European preparatory
  meeting as the need for complementarity).
- Government and NGOs.

- Better co-ordination between ministries with responsibilities for aspects of TVE,
  especially employment, education, training, economic development and welfare.
- Much more effective liaison and joint effort between TVE and the mass media.
- School and the workplace (many ideas were suggested in particular by Brazil,
  France and Finland).
- Closer exchanges between researchers and policymakers (an important lesson
  from the NGO forum).
- More understanding between youth and adults.
- Perhaps most important of all, the point stressed by Professor Colin Power, the
  need for the ongoing partnership between the master and the apprentice, the
  teacher and the learner.

**Windmills**

"When the winds of change blow, some build walls, others build windmills."

Emerging from our deliberations a number of windmills have been identified as
sources of energy which will take us forward into the 21st century. They include:

- UNESCO working with its international partners.
- Political commitment.
- Leadership and vision to create a strategy.
- Continuous lifelong learning.
- Teachers as mentors.
- Expanded resources.
- More status and prestige for TVE.
- Marketing.
- Partnerships.
- Citizenship.
- Harnessing of new technologies.
- Curriculum reform.
- Quality assurance.
- Research linked to policy-making including the need for early warning systems
  on changing economies and labour markets (stressed in the European preparatory
  conference).
- International co-operation including north-south and south-south mutual
  assistance.
- The statement of the ministers on the need for "Financial aid from international
  funding agencies, donor agencies, and development banks to the developing and
  underdeveloped countries to improve the quality of TVE in those countries."
  (The Bureau of the Congress felt so strongly on this point that they recommended
  that there should be inserted into the conditions of such financing that funding
  must go to TVE.)
An important message is that windmills are not expensive to construct and they can produce cheap renewable energy. Large-scale expense to innovate and renovate TVE is not always necessary.

**Bridge to the future**

This Congress itself has truly been a "bridge to the future". The Congress will be remembered most for the way it identified a new developmental paradigm for the new millennium, and began to shape a strategy for technical and vocational education to address this new paradigm, identifying the challenges and discovering the windmills which will capture the winds that can blow us to a new era where the creativity and fulfilment of each human being will lead to a culture of peace.

In the countries of the South Pacific it is said that there are four schools: the home, the church, the school, and the workplace. We have identified all of these and begun to understand the essential relationship between them. This is, after all, the key to lifelong learning.

**Youth**

Finally there is a matter of utmost importance for our hopes for the 21st century - the future of our young people.

The UN definition of youth is 15-24 years and in the year 2000 there will be 1.1 billion young people in this world, the largest single group in the population. Some 919 million of them will be in developing countries.

We are about to hand over the world to them but they are living in the midst of turbulence and uncertainty. After all, we promised them that when we managed to control inflation we would turn our attention to unemployment, but the unemployment rates are too high, especially youth unemployment, and particularly in rural areas.

Other factors confusing their situation include social dysfunction including the break-up of families; changing role models who come nowadays mainly from pop music or film or video; the poor standards of behaviour of our civic leaders; the impact of the culture of the screen, large and small, on values, and the clash between traditional and such imported values; irrelevant school curricula which is so often oriented towards university entrance when the vast majority of school students will not go directly to university; alienation and despair too often leading to suicide, which is the largest source of death amongst young people in so many countries.

We cannot be sure of their values, cannot be sure those values are in line with multilateralism and tolerance. We cannot be certain they will not become self-centred rather than community-centred. In the light of the turbulence created in the wake of the trends we have identified at this Congress, we should not be surprised if young people become more introverted and withdrawn.

But the good news is that deep within each young person's heart and mind is a desire to be positive, to contribute to society, to seek a meaningful existence, to make a difference.
in the world. All they want is for us to treat them as equal partners, meet them on their "planets", regard them not as the problem but as part of the solution, not consider them as objects of research but partners in the research.

Surveys of young people world-wide have revealed that the main concerns of young people today are employment, education and training, and the environment, all aspects which can be addressed in strengthened TVE systems.

Technical and Vocational Education can make a real contribution to the lives of our young people. It makes sense - if they have a curriculum that they and their families can see is relevant, practical, uses their creativity and ability, is engaging, and will be relevant to the workplace, they will respond very positively. It is happening. TVE in schools is taking off all over the world.

TVE is not the only answer but it is an important part of the answer. I have seen schools transformed when they have introduced TVE into their curriculum, along with effective vocational and personal guidance and counselling. The behaviour of the students has improved dramatically, the tone is different.

We must ensure that, in the follow-up to this Congress, our efforts are directed particularly to young people. Lifelong learning will be the answer for them and their generation for they will live most of their lives in the 21st century.

Since wars begin in the mind, it is in the mind that the defense of peace must be constructed. Our challenge is to create peace in the minds of youth. They are the future. The little angels of today will become the Voice of the New Millennium.
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