Globalisation
and its impact on
Vocational Education and Training

R. Barry Hobart

Barry Hobart & Associates
South Australia

August 1999
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SECTION 1: DEFINITIONS AND SCOPE OF THE TOPIC

1.1 Is globalisation a new phenomenon?

To a certain degree, globalisation is not a new phenomenon, either for Australian firms or for the world economy.

In the mid 19th century, the Bank of New South Wales established branches in London, CSR invested in the sugar industry in Fiji, and Burns Philp established operations in a number of Pacific countries (IC, 1996). At that time, world barriers to trade were falling, transport and communications technologies were developing rapidly and trade and capital flows were increasing. The East India Company of Great Britain was a prime example of globalisation of trade and production in the nineteenth century.

During the decades following World War II, industrialized countries enjoyed a period of exceptional economic growth and social peace, while developing countries made, on average, historically unprecedented economic and industrial progress (Singh, 1994). Nevertheless, despite a strong expansion of world trade, such developments essentially took place within the context of domestically organized industries. This was true also in Australia.

On the world scene, the 1970s and following decades witnessed a number of structural transformations affecting the organization of industrial activities, both within and between firms. The world's largest companies have expanded far beyond their original national markets. Some have become multinational companies (MNCs), still strongly based in one country but operating in many others. Others have evolved beyond this stage to become trans-national companies (TNCs) which have no strong allegiance to any state and treat the whole world as a single marketplace. Big business has outgrown its home bases and become stateless. Such well-known companies as Ford, General Motors, Shell, Toyota, Volkswagen, Nestle, Sony, Pepsico, Coca Cola, Kodak, Xerox, and many others, have more economic power at their disposal than the majority of countries in the world (Sklair, 1993:7).

1.2 What is Globalisation?

Globalisation refers to the increasing integration of both firms and economies as international flows of trade, investment and financial capital grow. Globalisation means that individual firms are no longer competing with a limited number of product or service providers, but with all other firms in the world economy.

The United Nations Conference on Trade and Development (UNCTAD, 1997b) suggests that “the concept of globalisation refers both to an increasing flow of goods and resources across national borders and to the emergence of a complementary set of organizational structures to manage the expanding network of international economic activity and transactions”.

The Bureau of Industry Economics (BIE), (1995, p2) argues that the term “denotes the increasing interdependence of international markets” and that “it relates to the strategies of corporations and governments, the competitive environment, the nature of international markets and so on”.

Laxer (1998, p287) sums up his concept of globalisation when he says:

"When we hear a word repeated often from enough credible sources we begin to believe that it must have validity. A kind of mass contagion occurs. If someone were to tabulate the top 40 words used today on the political newspeak charts, "globalisation" would be at or near the top. "Globalisation" is a short form for a cluster of related changes. (1) Economic changes that include the internationalization of production, the harmonization of tastes and standards and the greatly increased mobility of capital and of transnational corporations. (2)
Ideological changes that emphasize investment and trade Liberalization, deregulation and private enterprise. (3) New information and communication technologies that shrink the globe and signal a shift from goods to services. (4) Finally, cultural changes that involve trends toward a universal world culture and the erosion of the nation-state."

The Harvard School of Business (1998, p1) states:

"As the twenty-first century approaches, executives find themselves doing business in a global neighbourhood. They no longer speak the language, share the culture, or occupy the same continent as many of their customers...or even many of their employees. Now that economies throughout the world are linking and barriers lifting, the borders that once separated countries have become gateways to a wider marketplace."

The next concept that must be clarified in this paper is what is meant by the term "Vocational Education and Training" (VET)

1.3 What is included in vocational education and training?

The concept of vocational education and training (VET) is addressed in the publication by NCVER (July 1997; p3). It states that "...it is often difficult to determine precisely where either the intersectoral or the national-State boundaries of vocational education and training lie." Further, while it is acknowledged that most vocational education and training in Australia is provided by TAFE institutions, there are also other significant providers, for example:

- Private commercial providers specialising in VET
- Adult community education centres
- Higher education institutions
- Industry-based training centres and individual company training centres
- Secondary schools.

With such a breadth of contributors it would seem most helpful to view vocational education and training in the broader sense of education and training that prepares people for the world of work, and maintains their effectiveness and efficiency within it.
SECTION 2: VET IN ITS GLOBAL CONTEXTS

The most significant change today in the context of VET’s endeavours stems from the increased interdependence of nations as a result of globalisation. It is, therefore, appropriate to examine the nature of this interdependence.

2.1 The growing interdependence of nations

The ramifications of this interdependence are widespread and affect not only the economies of nations, but also their social and political structures. This interdependence also has implications for VET that include the need to facilitate the mobility of workers through curricula and delivery systems that have a global perspective, and the accreditation of prior learning and experience, some of which has been gained in other countries. Further, globalisation has lead to education itself becoming an important export. For this enterprise to succeed VET must initiate courses that can be delivered off-shore as well as courses that meet the needs of people who come to Australia to up-grade their occupational knowledge and skills.

2.2 Interdependence through exports

The interdependence of nations is demonstrated most particularly in the increase in the world's exports. This development is seen by a majority of economists as potentially benefiting nations. The following example of the expansion of world trade is an indicator of its contribution to growth. In 1950 the ratio of trade to global Gross Domestic Product (GDP) was 7%. In 1998 it represented 23%. Further, a third of the 25 largest trading countries are now developing countries. Between 1948 and 1997, merchandise trade increased 14 times, while world production increased 5½ times.

Over the past 10 to 15 years, the share of developing countries in world trade overall has increased from 20% to 25%. For the manufactured sector it has doubled from 10% to 20%, and it is thought that on current trends it could exceed 50% by the year 2020. In this same period of time, 10 developing countries with a combined population of 1.5 billion people have doubled their income per head.

While the gap between countries is in some cases widening, it is also true that from 1990 to 1996, developing countries recorded an average growth of 5.4%, three times more than advanced economies. Looking at the whole period between 1820 and 1992 we find that world population grew five-fold, world GDP forty-fold and world trade no less than 540-fold.

Since East Asia accounts for a quarter of world trade, much of the global impact of the Asian crisis will be transmitted through changes in trade flows. By mid-1998, the South East Asian countries most directly affected by the crisis had undergone an import compression in the order of 30% - 40%, while their exports had stagnated or fallen. Other Asian developing countries have exhibited similar trends, though to a lesser extent. In consequence, world trade, which grew in volume by 9.5% in 1997, the second highest rate in two decades, can be expected to grow much more slowly in the near future. (UNCTAD, 1998)

Australia has maintained its drive for exporting over the past few years. It increased its exports from 1994-95 to 1996-97 by 17.5%. In 1994-95 the total value of its exports was $67,052m and the value of its imports, in the same year, was $74,004m. In 1996-97 the value of its exports was $78,885 while the value of its imports was $78,977. At present Australia exports nearly 25% of its Gross Domestic Product,
while the USA exports 8%-9% and the European Community 11%-12%. (Source: International Trade database, June 1997.)

2.3 Interdependence through production sharing

In terms of the interdependence of nations, sharing different stages of manufacturing between countries is of major and growing importance. Global production sharing involves more than $800 billion in manufactures trade annually, or at least 30 percent of world trade in manufactured products. Trade in components and parts is growing faster than trade in other (finished) products, highlighting the growing interdependence of countries in international trade and production operations.

In 1995, OECD exports of parts and components in the key machinery and transportation equipment group, which includes about 50 percent of world trade in all manufactures, totalled $440 billion. This was about 30 percent of all shipments (components plus assembled goods) of machinery and transportation equipment.

A different form of production-sharing involves the use of special tariff provisions for the re-import of domestically produced components that have been assembled abroad. Trade in these goods totals about $100 billion annually, with most of the activity involving the European Union and the United States. However, more than 40 percent of manufactured exports from the Dominican Republic, El Salvador, Haiti, Jamaica, and Mexico involve assembly operations using components manufactured abroad. (Yeats, 1998)

The World Trade Organisation (WTO) sees this development as of considerable value. The Director-General of that Organisation, Dr Renato Ruggiero, states that:

"This underlines the degree of interdependence we have reached in our world. Clearly, the implications of trade liberalisation go much beyond trade and economics. By lowering barriers among nations, economies and people, it helps create interdependence and solidarity. Trade liberalisation is not just a recipe for growth, but also for security and peace, as history has shown us. Globalisation is about a world linked together by information, knowledge, and ideas as well." (Ruggiero, 1998, p1)

2.4 Interdependence through global political and economic institutions

Recent decades have witnessed a considerable expansion in the numbers, roles, and capacities of global political and economic institutions - some more or less technical in character, such as the International Atomic Energy Agency, others more explicitly political. These institutions represent an intensification of decision-making above the level of the nation-state. The United Nations, the World Bank, the International Monetary Fund, and the European Union are some of the more visible and important sets of organisations in an expanding network of authoritative international political entities (Saward, 1995, p533).

Globalisation is leading to contacts and exchanges between people in all parts of the world beyond the control of state authorities. As a result, a more integrated and interdependent global society is replacing the society of states. It is claimed by some (Samadja, 1996) that this phenomenon has resulted in the independent power of states being restricted in new ways and that the idea that governments have the power to secure the fate of their nation is less and less tenable.

2.5 Interdependence through international co-operation

Another important aspect of the interdependence of nations is the significance of international co-operation through supranational organisations. The interdependence of nation-states is increasingly mediated by formal agreements and the growth of international law. The realm of independent state action is now framed by regional and worldwide rules and standards. In
the forefront of this has been the evolution of the United Nations as a fully comprehensive organisation of states. Membership of the United Nations has become almost universal, with North Korea being the only large state not a member by 1994.

International relations are increasingly mediated by international organisations. In 1909 there were 37 inter-governmental organisations (IGOs) and 176 international non-governmental organisations (INGOs), by 1989 there were nearly 300 IGOs and 4624 INGOs (Held, 1995, p108). The work of these organisations has proliferated greatly.

According to Held (1995) in the middle of the nineteenth century there were on average two or three international meetings arranged by IGOs each year, by 1993 this had risen to almost 4000 annual events.

Saward, (1995, p533) points out that the network of authoritative international political actors is not composed only of governments. Increasingly governments find themselves engaged with supranational organisations such as the United Nations and the European Union, which require compliance with many of their edicts. States thus appear to have passed some of their power upwards to these supra-national organisations, and therefore the scope of their independence has necessarily been reduced. Saward asserts that this tendency has been exacerbated by pressures from International Non Governmental Organisations (INGOS), such as Greenpeace, Amnesty International or Oxfam which devote considerable time and effort to calling national governments to account for their failure to comply with international agreements.

2.6 Interdependence through the application of best practice

Best practice has been defined as the pursuit of world class standards and performance, describing outcomes in competitiveness and customer focused products and services. It is a comprehensive, integrated and holistic approach to all operational facets of an organisation. It is also a shared vision of performance supported by a comprehensive change strategy to bring out continuous improvement.

Within the world of work, best practice addresses the role and practices related to industrial relations, to management, and to special groups within the society and to VET. To the extent that the bench marks and strategies for best practice are determined by global standards, national economies become dependent for their efficiencies and competitiveness on the principles and practices of other countries. This increases the interdependence and inter-relationships among countries.

With respect to best practice in industrial relations Macdonald (1997) pointed out that employers, as the force driving economic changes, and their organisations have to take the initiative to develop a reform agenda which can deliver the potential benefits of globalisation.


International and national bodies that address special concerns relating to the world of work are increasingly exchanging information in order to develop best practice in their respective spheres. These special concerns relate to women in the work force, the disabled in employment, industrial health and safety, the culturally vulnerable, which include indigenous and ethnic minorities, migrants etc.

ANTA (1998, p5) perceives that the over-arching challenge for Australia in the context of globalisation today is to create the world’s most innovative and best regarded vocational
education and training sector. That is, to demonstrate best practice in the VET arena. To achieve this, it believes that the following must characterise our society:

- Australian citizens place a high value on vocational education and training because of the vital role it plays in the social and economic progress of the nation.
- Australian industry plays a leadership role in the vocational education and training sector. Industry and each industry sector believes that training is an investment, not simply a cost. Industry recognises that vocational education and training is a key instrument in maintaining and improving both enterprise and national competitiveness.
- Australian employers of all sizes and across all industry sectors make substantial investments in a skilled workforce by providing both formal and informal training opportunities for their existing employees and to young people entering the workforce.
- Australian workers want, throughout their working life, to update their vocational skills and to acquire new ones. They are active learners and are willing to make a personal contribution and commitment to their own education and training.
- Australian governments are committed to a goal whereby all young Australians are able to access post-secondary education and there are expanded opportunities for adults to pursue further education and training.
- Australian vocational education and training providers are responsive to the changing needs of all clients, industry and individuals alike.
- Australian schools offer a comprehensive and relevant program of vocational education to all their students and, to do this, establish partnerships with parents, industry and vocational education and training institutions.
- Australian school students freely choose their secondary and post-secondary education and training options based on accurate and balanced career and course information.
- Considerable emphasis has been placed on the need to establish benchmarking and principles of best practice within the Australian employment and training scene. The Australian National training Authority, the Office of Training and Further Education in Victoria, the New South Wales Department of Education and Training, and many other national bodies intimately related to the world of work have established procedures to encourage the development of best practice.

TAFE South Australia in its Intersectoral Relations and Special Initiatives Branch includes best practice and benchmarking in its goals. (Details of these activities can be obtained through the Internet at [www.tafe.sa.edu.au](http://www.tafe.sa.edu.au))

### 2.7 Conclusions

It can be seen from the above that the interdependence of nations brings with it both positive and negative outcomes. Even the positive outcomes of increased wealth can result in negative consequences if that wealth is not distributed in equitable ways. It is patent that some of the negative effects of the interdependence of nations are part of a transition process. Nevertheless, transition they may be, but they hurt those who are caught in this transition time. A major contributor to buffering these transitional adverse effects is the availability of flexible VET programs that permit the changing and up-grading of the knowledge and skills related to the world of work.
SECTION 3: IMPLICATIONS OF GLOBALISATION FOR VET

3.1 Communication evolution and information based economies

The evolving global economy is based on a number of factors (Herr, 1990): decreasing transportation and communications costs, new political structures and economic alliances (such as the European Community, North American Free Trade Agreement, the Asian Pacific Economic Co-operation), and homogenisation of tastes influenced by media and travel, and the communication revolution that has occurred in the past two decades. The most important influence is the emergence of flexible, information-based technologies (Carnevale, 1991). Profound economic, social and technological changes are creating new market standards (productivity, quality, variety, customisation, convenience, timeliness) and integrating producers and consumers through the communication revolution into networks for delivering goods and services globally or locally. It is essential that VET be thoroughly integrated into the world of work so that it can respond to the changes with flexibility and immediacy (ANTA, 1998; Allar, 1998).

Many organisations are now emphasising closely integrated work groups, teamwork, and shared information. The need for certain types of workers is being reduced or eliminated. At the same time, freer movement of some workers across national borders is escalating. Herr (1990) suggests that some workers engage in "electronic immigration," interacting through telecommunications with their employers in other countries.

It is not hard to find examples of the ways that technical developments are said to support this view. In 1950, only five countries had regular television service, but by the late 1970s there were 400 million television receivers in 138 countries. Additionally, it is estimated that the number of television sets worldwide has increased at least 10% in the four years since the last statistics were published (Mowlana, 1986:48). Again, it took 38 years for 50 million people to tune into Radio; the PC took 16 years to reach 50 million; the TV took 14 years to reach 50 million viewers; but once the Internet was opened to the general public, it took only 4 years to reach 50 million people (Telstra, 1998).

Another way in which the world is said to be increasingly becoming a borderless world is through the use of computers linked to the Internet. A classic example of this phenomenon is provided by the events of 1989 when the rest of the world that was linked to the Internet were able to receive immediate reports of the Chinese government's use of troops against the student protesters in Tiananmen Square from students linked to the Internet at Beijing University.

This perspective suggests to many that the use of new information technologies has profound implications for the exercise of state powers of censorship and control of information. (Cunningham et al, 1997)

3.2 Implications for VET of information technology

The implications of these developments for Information Technology in teaching are addressed by the University of Alberta's Senate Task Force on Technology and Learning. That task force observed that student learning styles and needs are highly individualised. Universities are facing new challenges as they attempt to assess and meet growing demand for full- and part-time, distance and remote learning opportunities; internationalised curricula and study opportunities; work-based study and ongoing professional development; and special needs of disabled students. Interest in distance learning particularly is growing, and postsecondary institutions and the private sector are entering the market in increasing
numbers. The resulting "mobility" of students is placing renewed emphasis on quality and suitability of the institution's programs to attract students.

Societal needs are also changing, bringing increased needs for lifelong learning and learning on demand. There are increasing pressures to provide affordable access for more students to postsecondary education.

This challenge can be met by telecommunications and information technologies. (University of Alberta, 1995)

Feeny (1998), Vice-President of Templeton College, Oxford University, and Director of the Oxford Institute of information Management, asserts that from his research on the interactions between business strategy organisational design and information technology that:

- The sort of global/virtual working to which many corporations now aspire requires a holistic overhaul of management processes, not a patchwork approach.
- The electronic communication systems at the heart of new processes need a framework of protocols and facilities if they are to convey meaning rather than data.
- Genuine cohesion and understanding of goals, strategy and culture are even more important when working virtually or globally - and even more difficult to achieve. Without these insights the corporate e-mail system is more likely to become the corporate rumour mill than the enabler of global management. With proper attention to these areas IT can truly be an enabler of global management at the operations and control levels.

Massey and Zemsky (1997) make two observations with respect to Information Technology (IT) based teaching. These are:

- The demand for IT-based teaching and learning programs will grow substantially, probably exponentially, over the next decade.
- IT will change teaching and learning profoundly, no matter what the response of traditional higher education institutions… If traditional colleges and universities do not exploit the new technologies, other nontraditional providers of education will be quick to do so.

### 3.2.1 The Australian scene

Statistics demonstrate that Australia is fast becoming an information society. For example, we have personal computer and Internet take-up rates which are among the highest in the world. Commentators on the future expect that more and more people, equipped with online technology, will work for themselves rather than be employed by larger organisations. This has significant implications for the delivery systems of VET. The effective manipulation of information in electronic databases via the Internet and other electronic means of communication will be fundamental to their business operations. Information technology is expected to drive sustained economic and employment growth into the 21st century. Australia, with its high levels of literacy, usage of computers and advanced telecommunications infrastructure, is well placed to capitalise on this phenomenon (ANTA, 1998).

The skills and knowledge of the workforce are key factors in the international competitiveness of enterprises and their workforce and in national economic growth and productivity. Knowledge based occupations and industries are the fastest growing and best remunerated. They call for new and different skill mixes in their workforce, and particularly, proficiency in information and communication technologies. It is crucial that vocational
education and training equips people with the knowledge and skills necessary to meet these demands (ANTA, 1998).

The significance of the need for training in information technology is given by the recent research (ANTA, 1998, p6) that addressed the use of the Web in business. Its findings are given below:

- 35% of businesses with a web presence claimed the site was significant to their business, 36% claimed it was too soon to tell.
- Less than 20% of enterprises with web sites believe they have achieved a return on investment greater than 10% of their investment.
- Service sectors, in particular banking, communications and education, have been early adopters of Internet technologies.
- By the end of 1998, it is expected that most of the Top 1,000 businesses in Australia will have an online presence.
- Nearly $4 million was spent on online advertising in 1997 and the total spend is expected to triple in 1998.
- More than 1000 companies can be classified as web developers in Australia. Many also carry out CD-ROM development and Internet access provision.
- In 1997, there were 1.5 billion electronic transactions worth $16 trillion dollars.
- In February 1998, $1.6 trillion worth of transactions took place.
- Out of some 1.6 million Internet users in Australia at the start of 1998, 1.09 million were commercial Internet users.
- 11% of all businesses have a web presence.
- There were 54, 800 active business web sites in January 1998. The market size has doubled since late 1996.
- Online purchasing volumes by Australians have more than tripled over the past 18 months, reaching a total of $55 million.
- Over 80% of firms predominantly use Internet access for email and business research. EC was cited as an application by less than 5% of enterprises with Internet access.


However Leach (The Australian, 9/6/98, p40) reports that:

"While Australian companies understand the benefits of having an Information Technology-literate staff, few are prepared to invest in training."

The National Centre for Vocational Education Research is seeking to enhance the use of Information Technology for effective decision making within VET, both nationally and internationally, by information dissemination through its Web site. It sees the dissemination of research findings as playing a vital role in responding effectively to the increasing processes of globalisation on the Australian economy (Robinson and Hayman, 1998).

While world-wide evidence is available to show that there is indeed a communication revolution around the globe, and Australia is involved in it, it would appear that within
Australia sufficient emphasis is not being placed on the training needed to meet the challenge of this revolution.

### 3.3 Internationalization of the curriculum

Globalisation bears with it significant implications for the content and structure of learning programs designed to develop people for effective and efficient performance within the world of work. Some of these programs will also need to provide recurrent vocational learning to meet the needs for changing competencies required for a particular job, or for chosen or enforced changes in career paths resulting from restructuring within the economy or for changes stemming from the mobility of the work force within the global economy. Relevant curricula within VET must, therefore, be internationalised.

Bremer and van der Wende (1995, p10) defines international curricula as:

> Curricula with an international orientation in content, aimed at preparing students for performing (professionally/socially) in an international and multicultural context, and designed for domestic students and/or foreign students

Walley (1997) claims that a successfully internationalised curriculum leads to students' intercultural competence developing out of both an awareness of other cultures and perspectives and an awareness of their own culture and its perspectives.

#### 3.3.1 The curriculum, employability and life-long learning

One of the most significant impacts that globalisation has on the curriculum is its need to develop in the learner the knowledge and skills for "employability" as well as for "employment".

President Jacques Chirac (1995, p2) of France emphasises this new concept when he said:

"Above all, we need to invest in people, allowing each and every worker access to lifelong vocational training... We must learn to replace the concept of a job for life by that of employability."

The United States, in recognising that the new economic order is a global one, has emphasised in its National Education Goals No 3 and No 5 that among the essential goals of education is that of preparing people for further learning and productive employment in the modern global economy.

The Government of the Province of British Columbia, Canada, (British Columbia, 1996) has stated in its evaluation of the VET system that a number of forces have been identified which are challenging the VET system's ability to develop a highly skilled workforce responsive to industry's needs. Among these forces it nominates *globalisation* and states that trade liberalisation and international competition for local jobs is compelling workers to enhance their "employability" skills. The response to these demands are seen as improving relevance and quality in the VET system by developing a relevant training system that promotes lifelong learning and is responsive to the needs of both employers and employees, and increasing the flexibility of the system in terms of delivery.

The Canadian Government, through its Industry Training and Apprenticeship Commission, asserts that the concept of an effective system of industry training and VET includes multiple entry and exit points to enable workers and learners to participate in programs in a proactive and "as needed" mode. It recognises the need to look at flexible ways of working with industry to provide opportunities for workers to participate in continuing education and training at work or at least "closer to home." (ITAC 1998).
3.4 Knowledge, skills and attitudes required by globalisation

Many educational thinkers are now recognising that the new competitive framework requires a broader set of skills; "hard" (technical) and "soft" (interpersonal and communication) skills are equally important (Carnevale, 1991). The skills identified by a number of authors (Carnevale, 1991; Herr 1990; Rhinesmith 1991a,b, 1992) include managing information, resources, and relationships with people as well as self-management. The starting point is basic skills: reading, writing, computation, and, most important, ability to learn continuously throughout life. In addition, "global" workers need flexibility, problem-solving and decision-making ability, adaptability, creative thinking, self-motivation, and the capacity for reflection.

Lawrence (1998:p66) claims that the implications for education systems of globalisation are critical, since educating for 'jobs' is today increasingly challenged by the need to build human capacity, not only for employability, but also for broader lifelong learning as well as for "adaptive and 'coping' livelihood strategies in a fast-moving and complicated world"

It is also recognised that even if workers do not themselves change their place of employment, they will nevertheless deal with people from other nations in their own workplaces or electronically. In the multi-cultural society of Australia, this is patently true. Dealing with other people in a diverse local as well as international context requires intercultural communication, teamwork, negotiation, conflict resolution, as well as complementarity - the ability to facilitate the work of others (Herr, 1990).

As companies recruit, select, train, and promote on a global scale from a global labour pool, workers need, in addition to a set of skills, a global mindset (Rhinesmith, 1992). People with global mindsets have the ability to look at the broader context, accept contradiction and ambiguity, trust processes rather than structure, value diversity and teamwork, view change as opportunity, and strive for continuous self-development.

Herr (1990, p157) recognises a number of psychological issues for which workers must be prepared in the face of potential mergers, downsizing, relocation, and constant change. He claims that "adjustment" is the key word: helping people assess the meaning of work, prepare for retraining, cope with uncertainty, and possibly deal with a move to a less satisfying and less well-paying job for which life satisfactions and rewards will need to be found in roles and opportunities outside the work force. Those who relocate will need help in adjusting to living and working in a different culture, as well as helping their families make the transition, a new dimension of the work-family issue. This is true of every migrant worker within the Australian society.

Another dimension of this change in attitudes demanded by globalisation is presented by Zwerling (1992). He asserts that because traditional assumptions about career development will pertain only to a few workers, a curriculum that centers on the generic skills needed at different career stages is essential. He presents the proposition that the best liberal education may come to be seen as occupational education and that the best occupational education may be seen to be liberal education.

Courses in many vocational areas are being revised to address the challenges of the global economy. Canada is promoting its new course in Global Entrepreneurship rather than traditional entrepreneurship. Maglen (1994) asserts that vocational education and training must change focus and emphasise a dynamic perspective that stresses generic skills, adaptability, and problem solving. Lavoie (1998) argues for the Canadian economy that although there has been a trend towards high-skilled workers in Canada, the pace of this trend is slowing down due to a shift in the labour market adjustment strategy towards a supply-
push orientation induced by a narrow labour shortage vision. She claims that, in the context of globalization, a "high-skills path" throughout the economy should be fostered. Gott (1989) sees both procedural and strategic knowledge as being important, with emphasis now being placed on strategic knowledge.

Some of the characteristics of work in the new economy also have implications for career development (Carnevale, 1991). Managers are becoming brokers/facilitators. There are more technical specialists, more lateral entry, and shorter, flatter career ladders. Instead of the old-style division of labour into discrete tasks, job functions are converging, and work teams are beginning to consist of individuals who alternate among expert, brokering, and leadership roles. Rewards are tending to be based more on the performance of teams and networks. Individualism has changed current notions of social justice, which is seen today less in terms of an equal distribution of material assets, and more in terms of equal opportunity to access knowledge, skills and public goods.

Another example of the impact of globalization on the curricula of VET in Australia is the recent decision by Australia's engineering profession to review its education for engineers. It is addressing the question of how to change the culture of engineering to meet contemporary needs for sustainability and environmental protection. Recommendations have been made from professional and academic bodies that it should be more outward looking and capable of producing graduates to lead the profession in its involvement with the great social, economic, environmental and cultural challenges of our time. Globalisation, information technology, environmental sustainability and biotechnology are seen as the big issues facing today's engineers (Richardson, 1998).

Another consequence of the internationalisation of VET is the need for a renewed attach on the general vocational divide and sectoral barriers in post school education, and even earlier.

3.5 Staff development to address globalization

The success of VET learning programmes is highly dependent upon the effectiveness of teachers and trainers engaged within those programs. Therefore, there is a great need for the provision of effective teacher training and trainer-training programmes. For those whose primary occupational responsibilities are not training, but who nevertheless have some responsibility for training, programmes to assist them with these training responsibilities will need to be delivered through strategies that accommodate the other demands and commitments that such people have within their occupations. The need for teaching/learning strategies to adopt a methodology of internationalisation is enunciated by Maidstone (1996, 95-103).

3.5.1 The world scene

An International Round Table held in 1997 and supervised by UNESCO/UNEVOC, addressed the issues related to technical and vocational teacher training from three dimensions:

1. The new technological, economic, political, social and educational developments that have taken place in the past ten years and their impact on technical and vocational education;
2. The implication of these developments for technical and vocational education, both formal and non formal;
3. The ramifications of these developments for technical and vocational teacher education.
The following were seen to be significant implications for technical teacher education:

- The need to keep teachers relevant to the contemporary world of work;
- The need to ensure that only persons with appropriate motivations and commitments become vocational teachers and trainers;
- Increasing the status of technical and vocational education teachers;
- Increasing the wages of technical and vocational education teachers;
- Providing for world of work experience for technical and vocational education teachers;
- Improving the selection criteria and procedures for technical and vocational education teachers;
- Ensuring the contemporary relevance of the knowledge and skills of technical and vocational education teachers;
- Establishing a career path for technical and vocational education teachers.

NBEET (1995, p3) makes the following observation concerning globalisation and its impact on education:

"It is evident that the new global society that will be emerging will have new priorities, new partnerships and new articulations. There is absolutely no doubt that the priority of this new global society will be education of a type that both passes on the existing stock of knowledge, skills, values and experience that have been built up over the years. At the same time, there will be the need for the society to educate people in ways which may enable them to adapt to the rapidly evolving infotechnological era and the universal inter-dependent socioeconomic and political framework."

It is becoming increasingly evident that there is a transition occurring in work education the world over that must impact significantly on the professional development of VET teachers and trainers.

### 3.5.2 The Asia and Pacific Region

Qureshi (1997, p5) observes that there is a recognition in the Asia Pacific countries that in the end only technological innovations can deliver real gains in productivity as productivity comes essentially from higher-skilled workers, from good management and, ultimately, from better education systems.

He maintains that the following are current trends in VET in the Asia Pacific Region:

- A growing collaboration between technical and vocational education and industry and the market for updating curriculum, equipment and facilities;
- Ever greater realisation in the countries of using the new information technologies to improve the efficiencies and the outreach of the VET systems;
- Continual updating of the content of the VET curricula for technologies of the future;
- Pronounced emphasis on the interfacing of education and enterprises in curriculum planning and implementation;
- Provisions of contextual learning, entrepreneurship and life-long learning in VET courses;
- Greater emphasis on preparing a multi-skilled work force and providing the job experience required for upskilling;
- Creating mechanisms for the recognition of prior learning and credit transfer;
• Introducing competency-based training and promoting retrainability;
• Tracing for job clusters and for transfer to jobs from related areas in business and industry.

3.5.3 Staff development in Australian VET

The context of staff development for VET in Australia in 1998 is one where a number of significant reforms are being made to the provision of VET including initiatives related to the development of an open training market, the introduction of the National Training Framework and the use of Training Packages by recognised training organisations.

The training of technical teachers/trainers again assumes a dimension which is both vulnerable and crucial when it comes to changing existing practices and structures so that they can remain responsive to the changing context of the work place. The most critical component of this new context is related to trying new philosophical beliefs that employ in larger measure the fast revolutionising new technologies to solve pedagogical problems.

In the 1990s, a number of staff development initiatives have been developed at both state and federal levels. Examples of these programs include: Implementing CBT, CBT in Action, AVTS Professional Development, National Transition Program, various National Staff Development Committee initiatives and, more recently, Framing the Future. Many of these programs have been the subject of evaluation studies (for examples, Harris, 1993; Radcliffe, 1994; Australian Competency Research Centre and Barton Institute of TAFE, 1995; Kelleher and Murry, 1996).

Most of the early staff development initiatives focused on awareness raising and skill development. 'Train-the-trainer' type models predominated. Generally, evaluations revealed that these approaches were too generic and had limited impact (Simons, 1997). Evaluations have also shown the potential of action learning approaches to have greater impact on organisational change and participant development (Kelleher & Murray, 1996). Issues with this approach still remain, however (Boydell & Leary, 1996, Perkins, 1997).

Recent work undertaken by the Centre for Research in Education, Equity and Work (CREEW) in collaboration with the NCVER on behalf of ANTA (1997) highlights that staff development is not yet sufficiently appreciated, planned or implemented as a strategic activity, and points to the significant challenge offered by the management of change and the need to use staff development in a strategic manner to facilitate innovation and change within the VET sector (Harris & Simons, 1997). A national study funded by the National Research and Evaluation Committee is at present being undertaken by the Centre for Research in Education, Equity and Work within the University of South Australia to determine the role of staff development for teachers/trainers in VET public and private providers.

Other important pieces of research into VET staff development needs that have been undertaken in the past two to three years within Australia are:

• NCVER series, Review of research, NCVER, Leabrook, South Australia.
• Victorian Association of Directors of TAFE Institutes (VICAD), Entry Level Competency Standards for VET Teachers/Trainers Project. Stage 1 developed competency standards and a linked qualifications framework in a form consistent with the national framework for the recognition of training. Stage 2 is developing assessment guidelines which, with the competency standards, is expected to receive national endorsement as an enterprise training package.
• Research undertaken by the Australian Centre for Industrial Relations, Research and Training examining teacher employment contracts and educational outcomes (Callus, 1997).

• Outcomes of studies exploring the impact of the open training market on teachers' work (Kell, Hill & Blakeley, 1998) and professional needs (Choy, Imhoff & Blakeley, 1996).

• The recently completed review and revision of the national workplace trainer and assessor standards (Gillis, Griffin, Falk & Catts, 1998).

• Research currently being conducted at Charles Sturt University which is examining how vet practitioners learn how to use CBT and the development of a model to guide future staff development initiatives (Hill, Smith et al., 1998).

• The Framing the Future programs and its continuing evaluation (Field, 1997).

• The recent Victorian study commissioned by the Office of Training and Further Education on trends in recruitment and maintenance of the VET workforce (ACRE/CEET, 1998).

The Victorian Association of Directors of TAFE Institutes (VICAD, 1998, p2) makes the following observations with respect to the staff development needs for VET:

"The role and character of “teaching” is changing as the VET sector expands to formally include a range of providers beyond the TAFE Institutes, as the VET sector broadens its brief to include new areas of training and new delivery approaches. Moreover, the organisational structure of VET in Victoria is also changing and this is having ramifications for the role and functions of “teachers” and “trainers” within that system..."

As a consequence VICAD has developed the competency standards given in Table 1 below.

Tinkler et al (1996, p. 104) has made a significant analysis of the skills needed by teachers/trainers for the Australian scene with respect to the use of technologies in VET. They state that:

With on-line services set to become the most common platform, TAFE teaching staff will need a range of training in:

• use of E-mail and bulletin boards for simple communication with students
• use of file transfer to send documents and receive assignments
• ability to participate in live real-time computer conferencing for tutorial purposes
• use of authoring packages to design materials that can be stored and made available on an electronic information service for students and, where appropriate, to ensure those materials are as interactive as possible
• ability to advise students on how to access various on-line data bases
• ability to guide students towards the development of a range of skills in searching for, analysing and presenting information in a range of mediums
• changing the relationship with students from 'expert information source' to 'information navigational guide, learning strategist, and knowledge analyst' as teaching moves from a predominantly didactic model to one based on dialogue and co-learning.

The research undertaken for NBEET in 1995 (Tinkler et al., 1996, p.113) showed that developments in TAFE had only shifted marginally over the 1991 assessment that was made by Mitchell et al (1991).
# Table 1: Competency Standards For Vet Practitioners

<table>
<thead>
<tr>
<th>Functional Areas</th>
<th>Units of Competency</th>
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</thead>
<tbody>
<tr>
<td><strong>Needs assessment</strong></td>
<td>1. Assess learning needs of individuals and groups</td>
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<td></td>
<td>2. Assess client needs for programs and services</td>
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<td></td>
<td>3. Develop learning plans for individuals with special learning needs</td>
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<tr>
<td><strong>Learning facilitation</strong></td>
<td>2. Prepare for training</td>
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<td></td>
<td>3. Deliver training</td>
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<td>4. Plan for teaching and learning</td>
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<td></td>
<td>4. Facilitate individual and group learning</td>
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<td></td>
<td>4. Manage flexible teaching and learning programs</td>
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<td></td>
<td>4. Integrate technology in teaching and learning</td>
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<tr>
<td><strong>Competency assessment</strong></td>
<td>3. Plan and review assessment</td>
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<td></td>
<td>4. Develop assessment tools</td>
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<td>5. Conduct assessment in accordance with an established procedure</td>
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<td></td>
<td>5. Establish the assessment system</td>
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<tr>
<td></td>
<td>5. Manage the assessment system</td>
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<tr>
<td><strong>Program design and evaluation</strong></td>
<td>4. Design and customise learning programs</td>
</tr>
<tr>
<td></td>
<td>5. Develop and customise learning resources</td>
</tr>
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<td></td>
<td>6. Evaluate learning programs and resources</td>
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<td></td>
<td>6. Design the assessment system</td>
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<tr>
<td><strong>Industry community relations</strong></td>
<td>5. Provide consultancy services</td>
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<td></td>
<td>6. Market and promote programs and services</td>
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<td>7. Consult on organisational training and development strategies</td>
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<td>7. Provide programs and services within an international context</td>
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<td></td>
<td>19. Review and promote training</td>
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<tr>
<td><strong>Program &amp; project co-ordination</strong></td>
<td>6. Co-ordinate program delivery</td>
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<td></td>
<td>7. Contribute to quality improvements in client service</td>
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<td></td>
<td>8. Undertake research in vocational education and training</td>
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<td></td>
<td>8. Manage projects</td>
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<tr>
<td><strong>Professional practice</strong></td>
<td>7. Critically examine teaching and learning practice</td>
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<td>8. Provide educational leadership</td>
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<td>9. Work in a team</td>
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<td></td>
<td>9. Maintain professional competence</td>
</tr>
</tbody>
</table>

Source: Standards and Qualifications - Volume 2, VICAD
SECTION 4: CONCLUSIONS

DEETYA (1995) sees the responsibility of VET to address globalisation in the following ways:

- It must be characterised by considerable flexibility. This flexibility must relate to its curricula, its delivery, its methodology, its availability, and its access.
- It must be delivered, in some form or another, across a wide range of formal and informal learning institutions, including general education, higher education, non-formal learning outlets, community education, human resource development entities within enterprises, government and non-government organisations, and private providers.
- There must be increasing articulation among these sources of learning, with a maximum of recognition among them of relevant learning and experience gained from whatever source or appropriate experience.
- VET must embrace fully the concept of life-long learning and recurrent education and structure its management, planning and delivery strategies in terms of this mandate.
- Its basic and on-going educational provision must develop and reinforce positive adjustments to economic change, cultural diversity, changing competencies, mobility in employment, and diversity of career.
- It must address core competencies to the extent necessary to strengthen the employability of learners as well as enabling them to be effective and efficient in specific employment.
- It must contribute significantly to the development of attitudes necessary to the co-operative and harmonious functioning of the workplace, and to the commitment by people within the work place to self-development and personal empowerment.
- It must support, to the extent possible, the competencies required for a realistic level of self-direction among the diversity of learners.
- It must provide for the development of entrepreneurial knowledge and skills relevant to the global arena.

After considerable discussion and debate at the Fifth International Conference on Adult Education, several delegations adopted the following statements as being an essential response by VET to Globalisation.

"To ensure that progress in human development occurs as a result of effective education for the world of work, it is proposed that the following be implemented:

- Comprehensive career guidance be provided, as much as is reasonable and possible, to citizens as a life-long support for effective work-related decision making.
- General education assume a responsibility for an effective orientation to the world of work and for the development of generic concepts and attitudes that are essential to the transferability of knowledge, attitudes and skills in the learning of occupational-specific competencies.
- Context-relevant research that supports the application of science and technology to the world of work be supported by both government and industry. Such research must also address the multifarious issues of environmental protection.
- Education for the world of work engender in its learners attitudes of responsibility for the environment and cultural heritage, and the commitment to practices that support this area of human responsibility.
- Irrelevant barriers to the access of all levels of education that are based on discriminatory factors such as, sex, race, creed, class, etc. or on spurious measures of
academic ability and potential, be removed in order to support the development of the full potential of the individual and to allow, to the extent possible, for a seamless career path.

- Those who have withdrawn from the world of work for prolonged periods of time to fulfil other responsibilities, such as parenting, be provided, to the extent possible, the adult education that enables them to re-engage in work without penalty.

- Competencies be developed that are necessary to support effective entrepreneurial initiatives, in whatever context or arena. These may also include competencies in supervision and management for appropriate people to assume leadership roles in social partner organisations and NGOs.

- Articulation among educational institutions should facilitate the recognising and crediting of relevant learning and experience from all strands of education. Such articulation needs also to address the issues that support an increased international recognition of a person’s learning and experience.

- The non-formal sector of the economy must be provided for through the application of strategies that enable that sector to engage in such education.

- Teaching/learning strategies be implemented that are student-centred and appropriate to the particular circumstances of the learner.

- Curricula for education for the world of work must be continually developed and revised in order to ensure relevance and life-long occupational opportunities and employability.

- Selection procedures for teachers and trainers within the world of work be improved and that these professionals be given thorough and continuing professional development in order to fulfil their responsibilities to the highest standards.

- NGOs be given full support by governments and industry to assume increasing responsibility in adult and continuing professional education.

- Policies must be developed by decision-making authorities and legislation implemented by governments at all levels that support life-long adult and continuing education for the world of work.

- Authorities, including governments and ministries at the various levels within a nation, co-ordinate their responsibilities for education for the world of work.

- Every effort should be made by all relevant parties, such as NGOs, enterprise, governments, etc. to work towards the adequate financing of adult and continuing education for the world of work.

- All relevant entities should aim for a fair and just distribution of wealth within the world of work, without inhibiting individual initiative and personal freedom.

- All education for the world of work must be sufficiently comprehensive to contribute to the development of the learner as a mature, autonomous and socially responsible person; in addition to its primary responsibility of developing occupationally-specific competencies." (Hobart, 1998, p22)
References


Qureshi, Mohmad (1997), VET in the Asian Pacific Region, Bangkok: UNESCO


VICAD (1998), *Entry Level Competency Standards for VET Teachers and Trainers,* Melbourne: Victorian Association of Directors of TAFE Institutions

