Increasing globalization has highlighted a range of international approaches to career and technical education (CTE) or vocational education (VE), for example, the German dual system, the British National Vocational Qualifications (NVQs) and General National Vocational Qualifications (GNVQs), and Australia's Vocational Education and Training (VET) and Technical and Further Education (TAFE) systems. This Alert reviews the trends and issues involved in international approaches to CTE/VE.

Across the international spectrum, CTE reflects a country's economic and social investment in education and the strategies used to enhance the skill development of workers and foster their employability. The purpose of these efforts is to raise the country's level of productivity and competitiveness in a global market (Keating et al. 2002). Ways various countries have approached this challenge have changed over the years, as have the systems to support the CTE programs.

There is a growing awareness across countries of the need to forge connections between academic and career-technical education. With employment opportunities moving from craft industries toward the new organizations of the information age, there is a tendency in some of the systems to allow greater flexibility in pathways that connect technical and academic courses as a means of encouraging cognitive skill development. Core competencies, soft skills, and foundation skills that contribute to lifelong learning are increasingly recognized as vital to employment in workplaces that demand flexible production methods, product and production innovation, and the generation of new knowledge (Keating et al. 2002; Sellin 2002).

The responsibility for CTE is also changing as systems are under considerable pressure to reduce costs by increasing private investment and initiating public-private partnerships. This is especially true for continuing vocational training (CVT) programs, which across countries, are showing a trend away from government-led funding toward demand-side initiatives that distribute costs across governments, industries, and individuals (Elson-Rogers and Westphalen 2000). The following resources contain additional information about trends and issues involved in international approaches to CTE/VE.


Deissinger, T. "Current Problems and Developments of VET in Germany—the Educational Case for Modernisation." Australian Journal of Adult Learning 40, no. 2 (July 2000): 5-32. Contends that (1) new technologies and the disappearance of old established training occupations are leaving young people with limited general or vocational qualifications and few career opportunities; (2) new occupational profiles may be too demanding for weaker learners, causing companies to become more selective in providing training; and (3) regional diversity is making it difficult for some young people to find apprenticeship placements.


The German dual system of vocational education and training (VET) is distinguished from most training systems in the world because it involves the voluntary contribution of companies who support it in both practical and financial terms. The craft sector, which has traditionally been its strongest training segment, is now in contention with the service sectors that have been previously neglected.


When 60 employers who were asked to assess the impact of Australia’s efforts to develop a more encompassing system of employment-based vocational education and training, competency-based assessment and training flexibility were the two elements most favorably assessed.


Analysis of approaches to funding of continuing vocational training in Austria, Denmark, Finland, France, Germany, the Netherlands, Spain, Sweden, and the United Kingdom suggests that there is likely to be even greater increases in the distribution of training costs in the years ahead.


Examines the effects of implementing in eastern Germany the dual system of vocational education used in western Germany, where students divide their time between work and school. Focuses on the role of European Union programs and funding that supports the programs, and describes specific education and training projects.


Compares core skills efforts in Germany and Sweden that use vocational training to foster core skills and key competencies and describes how they integrate their training within existing structures rather than making radical long-term changes.


Compares Finland to “third-world” countries in order to examine the meaning of being peripheral in vocational education. Discusses how
centers and peripheries are changing, requiring more cultural sensitivi-
ty in vocational education research.

Heitmann, G. *European Structures of Qualification Levels on Re-
cent Developments in Germany, Spain, France, the Netherlands
and in the United Kingdom (England and Wales).* Vol. 3.
Thessaloniki, Greece: European Centre for the Development of
Vocational Training, 2001. (ED 458 446)

Discusses ways to ensure the transparency of qualifications and their
categorization in systems at the national and transnational level and
describes the different routes that countries are taking to achieve this
end.

Heraty, N.; Morley, M. J.; and McCarthy, A. “Vocational Edu-
cation and Training in the Republic of Ireland: Institutional Reform
and Policy Developments since the 1960s.” *Journal of Vocational

Because lifelong learning is a critical component of today’s competi-
tiveness, vocational education and training requires a learning envi-
ronment in which thinking is combined with doing, all of which re-
quires a strong commitment from both the state and from individual
employers to facilitate the development a knowledge-based and knowl-
edge-driven economy.

Keating, J. et al. *Comparative Study of Vocational Education and
Training Systems: National Vocational Education and Training
Systems across Three Regions under Pressure of Change.* Leabrook,

Describes and compares VET systems across nine countries in Europe,
East Asia, and the Americas. Identifies key issues facing Australia: its
attempt to relate VET to the other educational sectors, its relationship
to the state and civil society, demand-side issues, and VET’s capacity
to change in the face of new challenges.

Konrad, J. “Assessment and Verification of National Vocational Quali-
fications: Policy and Practice.” *Journal of Vocational Education &

Suggests that the vocational system should move from narrow quality
control to total quality management and should initiate situated learn-
ing in communities of practice. Cautions that this change would re-
quire radically different quality criteria and professional development
in collaborative and situated learning.

Lindell, M., and Abrahamsson, K. *The Impact of Lifelong Learning
of Vocational Education and Training in Sweden.* Leabrook, Aus-

Describes Swedish initial vocational education (IVT), which is fi-
nanced by public money and addresses basic skills and general occupa-
tional qualifications, and CVT, which is provided through the joint
efforts of public schools, private enterprises, training companies, trade
unions, and employer associations.

Manning, S. “What Can We Learn from the Use of Qualifications with
a Dual Orientation across Europe?” *Vocational Training: Euro-

Describes how European projects that combined secondary vocational
and general education with a dual orientation toward employment
and postsecondary education facilitated mobility in the education sys-
tem and labor market.

Mayer, C. “Transfer of Concepts and Practices of Vocational Educa-
tion and Training from the Center to the Peripheries: The Case of
Germany.” *Journal of Education and Work* 14, no. 2 (June 2001):
189-208.

Suggests that, because education and training systems are embedded
in sociocultural contexts, the transnational transfer of vocational educa-
tion systems may be impossible.

Onstenk, J. “Broad Occupational Competence and Reforms in Voca-
tional Education in the Netherlands.” *(Australian and New Zealand
Journal of Vocational Education Research* 9, no. 2 (November

New technology, changing markets, and the rise of new organizational
paradigms have shifted emphasis from action-centered skills to intel-
llectual skills. Knowledge and skills must be learned in context, which
will require changes in the content and didactic of vocational educa-
tion that stimulate self-directed learning, problem solving, problem
formulation, and the process of learning to learn.

Purcell, J. “Case Study: National Vocational Qualifications and Com-
petence-based Assessment for Technicians—From Sound Principles to

Describes four misconceptions about competency-based assessment in
National Vocational Qualifications: they focus only on workplace per-
formance, are appropriate only at vocational-technical levels, are con-
cerned only with practical skills, and do not encourage further educa-
tional development. Identifies ways that these criticisms can be ad-
dressed.

Richardson, L. “In Sickness and In Health: Learning and Assessment
Inside and Outside the New Zealand Qualifications Framework.”
*Asia-Pacific Journal of Cooperative Education* 2, no. 1 (2001):

Examines the implementation of the New Zealand Qualifications
Framework and stresses that government policy must consider the
differing skills of industry and education when forging relationships
between educational institutions and industry partner organizations to
ensure a balance of power that promotes effective implementation.

Schwab, R. G. “VET-in-School for Indigenous Students: Success
through ‘Cultural Fit.’” In *Research to Reality: Putting VET Re-
search to Work. Proceedings of the 4th Australian Vocational
Education and Training Research Association Conference,

Describes two innovative approaches to delivering vocational educa-
tion and training to indigenous students in Australia. Identifies oppor-
tunities for community-based education and training, community rel-
levance of programs, and the presence of leadership and a committed
competent staff as factors that influenced program success.

Sellin, B. *Scenarios and Strategies for Vocational Education and Life-
long Learning in Europe: Summary of Findings and Conclu-
sions of the Joint CEDEFOP/ETF Project (1998-2002).*
Thessaloniki, Greece: European Centre for the Development of
lication/download/panorama/5131_en.pdf

Identifies four areas of focus for the future: the social dimension of
VET and lifelong learning, public and private partnerships, compatible
national and European structures of educational and VET qualifica-
tions and the provision and promotion of European standards, and the
modernization of work.

Working Paper no. 36.* Clayton, Victoria, Australia: Centre for

Australia’s User Choice program promotes client negotiation of pub-
licly funded training needs, encourages a national training market-
based pricing of training on clearly identified state/territory unit cost
benchmarks, and allows clients to negotiate and purchase training
over and above what is essential to their qualification outcomes.

This project has been funded at least in part with Federal funds from the U.S. De-
partment of Education under Contract No. ED-89-CO-0013. The content of this
publication does not necessarily reflect the views or policies of the U.S. Department
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