Working teacher education for technical and vocational education and training (TVET) into the European Higher Education Area
– Explorations on European diversity, internationalisation
– and on the role research

Mr Pekka Kämäräinen
ITB, University of Bremen
Am Fallturm 1, D-28359 Bremen, Germany
tel. +49-421-218 4645
e-mail: pkamar@uni-bremen.de

Abstract

The paper examines the role of teacher education for technical and vocational education and training (TVET) in the European Higher Education Area. The paper analyses the current diversity and some recent efforts to find common grounds via European cooperation. Based on these analyses the paper examines the emergence of broader international initiatives. Secondly the paper analyses the development of recent European policy processes (e.g. the Bologna process and the Copenhagen process) and their impact on European cooperation in education and training. The final section outlines key questions and strategic options for future European cooperation in TVET teacher education.

Key words: Vocational teacher education, European cooperation, Internationalisation, Professionalisation, Research in technical and vocational education and training (TVET)

1. Introduction

This paper examines the role of teacher education for technical and vocational education and training (TVET) in the context of the emerging European Higher Education Area. The starting point for these examinations is the conceptual and cultural diversity among within European Union. In the light of this diversity the paper analyses some efforts to overcome the conceptual gaps and to reach common grounds at the level of European cooperation. From this perspective the paper analyses the work of the Europrof project and its follow-up project Euroframe. Based on these pioneering activities in the European context the paper examines the transition of these debates into broader international community-building initiatives.

As a parallel theme the paper analyses the impact of recent European policy processes on European educational cooperation. As a starting point the paper discusses the role of the new European framework processes (the Bologna process and the Copenhagen process) as a part of the follow-up of the Lisbon Summit 2000. Subsequently, the paper analyses the role of European cooperation in ‘tuning in’ the new educational structures. Finally, the paper discusses the prospects for European and international cooperation in the light of the changing European programme frameworks.

The final section the paper poses questions for future European and international cooperation. In this context the paper discusses the role of teacher education for TVET between ‘academisation’, ‘professionalisation’ and supporting innovations in the field of TVET.
2. From European diversity to international cooperation in TVET teacher education

2.1. The starting point: The European diversity in TVET teacher education

The development of national models for TVET teacher education has been overshadowed by the underlying TVET cultures and by the related development agendas. At the same time there are certain general tendencies towards professionalisation and flexibilisation that link these models more strongly to the development of European Higher Education Area. As has been indicated above, the Bologna process invites the established academic domains and the emerging areas of expertise to clarify in their own context how to make use of the new degree structures and related developmental frameworks. Regarding the position of diverse models for TVET teacher education, the situation is open and there has been no common platform that would bring different approaches to a common discussion. At this point it is possible to characterise the basic models and related strategic options. However, in the light of the above the models and the options can only be characterised as ideal types:

- **Semi-academic colleges for vocational teacher education** have originally been established as independent organisations (although some have been linked to larger Higher Education Institutes (HEI) with a non-university status). In general the colleges have had the task to deliver basic pedagogic competences to professional experts that are being retrained into vocational teachers. From the conceptual point of view the colleges have seen their own expertise as ‘pedagogic expertise applied to the field of TVET’.

- **Faculty departments for pedagogy of vocational and professional subjects** have been established either as university departments (e.g. departments for pedagogy of commercial education) or as HEI units that belong to a faculty for professional subjects (e.g. colleges for educationally oriented engineers). From the conceptual point such colleges emphasise their expertise as that of ‘pedagogy of vocational and professional subject disciplines’ (in German “Fachdidatik”). In the context of the Bologna process such colleges have been looking for cooperation with faculties for the related academic subject disciplines.

- **Faculty departments for integrative expertise in pedagogics of TVET** have been established as faculty departments for disciplines in ‘pedagogics of TVET’ (in German: ‘Berufspädagogik’). In some universities these departments have been established in educational faculties and they cover a broader scope of professional areas of specialisation (in German: ‘Berufliche Fachrichtungen’). In other universities they have been established in the faculties of subject disciplines and they focus on developing specific ‘vocational disciplines’ (in German: ‘Berufsfeldwissenschaften’). In both cases the departments emphasise their scientific profile as integrative expertise on ‘pedagogics of vocational learning and continuing professional development’. Regarding the Bologna process such departments have been looking for solutions that position the field of TVET as a specific area of expertise (in is own right) and incorporate it into the degree structures with its own Masters Programmes and Doctoral studies.

The above discussed conceptual and institutional diversity poses major challenges for initiatives that seek to develop broad-based international cooperation and joint knowledge development on the issue “education of TVET professionals”. On the one hand such initiatives need to be sufficiently open and inclusive to provide a basis for cross-cultural dialogue and learning from each other. On the other hand such initiatives need to reach an awareness of conceptual transition, commonality and of mutual enrichment.
2.2. From conceptual diversity to search for common ground: the Europrof project

In the context of the European action programme Leonardo da Vinci the Europrof project took the first steps to open a broader European debate on future-oriented models for the education of TVET professionals. The main aim was to develop concepts that would help to overcome the cultural barriers between expertise in TVET (teaching-learning processes) and in HRD (workplace-based learning and continuing professional development). At the same time the project tried to support debates on the renewal of vocational teacher education and on the strengthening of European research culture in the field of TVET.

The Europrof project studied the prospects for developing an integrative concept for the education of TVET professionals in several participating countries (the core partnership). In this respect the project started with a critical analysis of cultural barriers and conceptual gaps that were related to the existing models. Then, the project developed a set of guiding principles for future-oriented curriculum development (the “Europrof cornerstones”).

Regarding the contribution of the Europrof project to Europe-wide knowledge development it is worthwhile to note that the project brought together participants that had different views and orientations on the theme “education of new TVET professionals”. In this respect the project managed to organise a Europe-wide “invisible college” in terms of a cross-cultural learning community. However, after the development of the “cornerstones” (and after the incorporation of the research themes of the affiliated experts) the project started to experience difficulties in working towards a common core structure for curriculum development that would take the debate further from the ‘cornerstones’ and from the attached research themes.

The project history of Europrof was characterised by an attempt to avoid the transition of the partners into advocates of their national educational models (and of related TVET cultures). Therefore, the Europrof project tried to reduce the amount of comparative analyses and to push the partners towards collaborative research & development work. However, after certain interim steps the project was no longer in the position to promote a common dialogue on the implementation of the emerging ideas in different national contexts. Therefore, the follow-up project Euroframe project tried to avoid this dilemma by dividing its work into two parallel strands. The two strands of the Euroframe project led to two main results

1) the proposal for a European inter-university institute for promoting TVET-related expertise and
2) a set of case studies on research & development activities that could link the work of such an institute to pilot projects and regional initiatives with a broader social context.

However, the two strands became independent of each other and the underlying conceptual approaches started to grow apart from each other instead of working towards an integrative European framework.

2.3. From European pioneering activities to international community-building

In the light of the above it is not that surprising that the next step of the above presented debates has been characterised by a transition to broader international contexts via European-Asian cooperation. One the one hand the European-Asian cooperation has been open arena for diverse influences. On the other hand several Asian countries have shown a new interest to explore the potentials of such TVET-related concepts that are bringing forward the theme ‘vocational professionalism’ (“Beruflichkeit”). This interest has arisen from the fact that the
rapidly growing Asian economies are becoming concerned how to promote the competences of the workforce.

In the light of these debates the UNEVOC centre of UNESCO organised (in collaboration with the Chinese government) an international conference on innovations and expertise in TVET in Hangzhou, China, in 2004. It is essential to note that the international participants of the Hangzhou conference agreed on a common framework for promoting innovations and professionalisation in the education of TVET professionals. (The outcomes of the Hangzhou conference are presented in another paper for this symposium, see Dittrich 2006).

In order to create a basis for a community-building follow-up process the participants of the Hangzhou conference launched a new international network that was latterly named as the “United TVET Network for Innovations and Professionalisation” (UNIP). After the Hangzhou conference the UNIP network has organised ‘regional’ follow-up conferences in Asia (Tianjin 2005) and in Europe (Oslo 2006). Currently the UNIP network is setting up its regional activities and starting to prepare the next international conference (see www.unip-net.org).

In this context it is essential to note that it has been relatively easy to take the Hangzhou framework as a reference point for new initiatives in the Asian region (see the exemplary cases that are presented by Dittrich). Equally, the existence of Hangzhou framework has provided a new basis for strengthening trans-continental cooperation between Europe and Asia in the field of TVET (as an example it is possible to mention the Asia-Link project TT-TVET that focuses on promoting professionalisation in teacher education for TVET (on the TT-TVET project see http://www.itb.uni-bremen.de/tt-tvet). However, in the European context there is a need to consider the impact of recent policy processes as a background for discussing the relative importance of the Hangzhou framework for positioning TVET teacher education into the emerging European Higher Education Area.

3. The impact of European policy processes on Higher Education, TVET and European cooperation prospects

3.1. The development of European educational policies after the Lisbon Summit

The Lisbon Summit (the meeting of the European Council during the Portuguese presidency) of March 2000 provided a critical turning point for European policy development in all fields. The background of the Summit was characterised by a vivid debate on the lack ICT-related skills in general and on the weakening competitiveness of European high technology industries. Altogether, the Lisbon Summit decided to launch new framework processes for promoting innovation policies in order to make Europe the most competitive innovation area by the year 2010. The Lisbon Summit provided a basis for a new co-evolution of national policy processes, intergovernmental cooperation and policy shaping within the EU. The Lisbon conclusions required the Commission and the Member State to develop ‘open methods of coordination’ for all policy fields. Equally, the Summit set the timeline for specifying the objectives to be reached by 2010 and to launch the respective follow-up processes.

In the field of education and training the Lisbon follow-up was guided by the Commission report “Concrete future objectives for the education systems” that provided the basis for a ten-year work programme that was named “Education and Training 2010”. The implementation
of the programme was monitored and reviewed every two years on the basis of joint reports (prepared by the Commission and the Member states).

Parallel to this, the framework-shaping processes that had been launched in the field of higher education (the **Bologna process**) and in the field of TVET (the **Copenhagen process**) were incorporated into the Lisbon follow-up.

**The Bologna process** has been grounded on the voluntary participation of signatory governments (which include also countries outside the European Union). The aim of the Bologna process is to create a common European Higher Education Area with common degree structures and common approaches to quality development and credit transfer. In this context it is worthwhile to note that the Bologna process has become a relatively independent framework process that combines intergovernmental and inter-institutional cooperation.

**The Copenhagen process** was launched by the Copenhagen Declaration of the Education Ministers in 2001. The main thrust of the Copenhagen process is the preparation of a European Qualification Framework (EQF) that was launched with a public consultation that was based on a Commission proposal that was to be commented by national governments and by European interest groups. Currently the Commission is preparing a Communication on basis of the outcomes of the consultation.

### 3.2. On the prospects for ‘tuning in’ the new educational structures

In the light of the above it is essential to note a clear difference in the way that the above mentioned European framework processes provide opportunities for domain-specific piloting and for ‘tuning in’ the new educational structures:

a) **The Bologna process** is based on a configuration that consists of intergovernmental and inter-institutional cooperation process. Altogether the process seeks to respect the traditional autonomy of university institutions and of academic research disciplines. Therefore, the framework development invites different subject disciplines and areas of expertise to work their way in into the new structures. In this respect the process relies on holistic transparency (Bachelor-Master structure) that is complemented by procedural transparency (quality enhancement) and transparency of credits.

b) **The Copenhagen process** seeks to create a European mobility area across different systems, institutions and organisational settings. It is based on the work of European-level expert groups that provide guidelines for intergovernmental cooperation and for joint agreements of sectoral stakeholders. As a strategic approach to reduce the diversity among national qualification frameworks, the process relies on the transparency of ‘learning outcomes’ that can be certified at certain level of competences. Thus, the development of European qualification frameworks does not focus on ‘whole qualifications’ (such as the Bachelor-Master structure in the higher education). The aim to promote Europe-wide credit transfer is linked to this starting point.

In the light of the above it is worthwhile to note that the European Union has launched a specific support structure to promote the domain-specific participation in the Bologna process. The support structure works under the heading **“Tuning Educational Structures in Europe”** and is known as the **“Tuning project”**. The original idea was to launch a pilot project for ‘tuning in’ the new educational structures. Accordingly, the Tuning project worked
in six educational areas with a focus on competence-oriented curricula, credit transfer, assessment of learning and quality enhancement. The Tuning project has continued its work in several evolutionary phases and is preparing to start its fourth phase. In addition to the six original pilot areas the Tuning project provides support for parallel European activities (that are funded as Erasmus thematic networks) and for “Tuning” activities in other continents (pioneered by “Tuning Latin America”). In this context it is worthwhile to note that the Erasmus networks have been relatively independent of the ‘Tuning methodology’ and they have been free to decide whether they follow the same approach or whether they choose an alternative approach.

As a contrast, the process of preparing the European Qualification Framework has been looking for an instrument that can promote transparency across existing frameworks. Therefore, the respective pilot activities to be undertaken are focus on improving the trans-national transparency of national qualification frameworks or on the European transparency of sectoral qualification frameworks. Thus, the possibilities for ‘tuning in’ the existing TVET provisions to desired European structures have been limited.

3.3. Reviewing the prospects for European and international cooperation

In this context it is worthwhile to consider what kind of cooperation opportunities the new European cooperation programmes can provide from the year 2007 onwards. At this moment the current European cooperation programmes in the field of education and training are coming to an end by December 2006. The new programme generation (“Integrated programme on lifelong learning”) will be launched from the beginning of 2007. In the transition period it is difficult to anticipate to what extent the new programme will promote similar modes of cooperation as the earlier programmes. However, given this uncertainty it is possible to explore the prospects for future cooperation in the light of some key measures that are likely to be continued under the new frameworks.

From the perspective of TVET teacher education such prospective mapping is particularly relevant in the current situation. As the examination of the current conceptual diversity points out (see section 2.1.), it is not easy to develop common European frameworks for TVET teacher education. Instead, the current diversity makes it difficult for any of the existing models to position itself properly into the European Higher Education Area (EHEA).

In this prospective mapping I will take as my starting point the Hangzhou conclusions on developing Masters Programmes for
a) promoting the professionalisation in TVET teacher education and
b) providing the basis for TVET-related research culture.

From this perspective it is possible to examine, what kinds of European cooperation activities (funding arrangements) could support trans-national initiatives (projects) that develop TVET teacher education in accordance to the Hangzhou framework.

a) Prospects for cooperation within European Higher Education Area

Regarding the prior Erasmus activities it is worthwhile to consider potential of the following activities as support for the development of TVET teacher education in Europe:

a) The Erasmus Curriculum Development projects are to be continued as measures that support the planning of joint European curricula (whole curriculum) or joint modules.
b) The Erasmus Thematic Networks are to be continued as measures that support the introduction of new European frameworks in specific academic domains or similar fields of expertise. The network funding provides a basis for developing European associations.

b) Prospects for trans-continental cooperation in Higher Education

Regarding the trans-continental cooperation it is worthwhile to note the following:

a) The Erasmus Mundus programme provides a basis for trans-continental mobility that is linked to joint curriculum development. This programme will be integrated into the Integrated Programme for Lifelong Learning.

b) The EuropeAid programmes (Alfa, Asia-Link) provide general frameworks for trans-continental cooperation in Higher Education. Because of the transition to the new generation of EuropeAid programmes there is no detailed information how the work of these programmes will be continuation from the year 2007 onwards.

c) European programmes for analysing work-related and virtual learning

Regarding the involvement of TVET teacher education in other European cooperation activities it is worthwhile to note the following points:

a) The Leonardo da Vinci programme will be continued as one of the sectoral programmes of the Integrated Programme on LLL. However, TVET teacher education is not eligible as a target area. Yet institutes and colleges can participate as expert organisations in projects that focus on TVET and/or on learning and professional development in working life.

b) The transversal programme (within the Integrated Programme on LLL) will accommodate the successor activities of the hitherto separate e-learning programme and the hitherto separate monitoring and evaluation measures. Institutes and colleges for TVET teacher education can be involved as expert organisations but the activities should focus on the field of TVET and/or on learning and professional development in working life.

4. Teacher education for TVET: How to link academisation, professionalisation and innovations in educational practice to each other

The starting point of this paper has been the cultural diversity among TVET teacher education models in Europe. This diversity can be understood a result of the evolution of the national TVET systems (on the one hand) and the national frameworks for teacher education (on the other hand). However, if different TVET teacher education institutes remain isolated from each other and do not try to develop a culture of mutual learning, this prevents them from identifying areas of common strength and potentials of conceptual growth.

In this respect it appears that TVET teacher education institutes have to develop a strategy how to find a balance between the following poles:

- **academisation** (relation to research disciplines and to the scientific community),
- **professionalisation** (relation to career models of the potential students or trainees and their prospects for professional development) and
- **innovations in educational practice** (support for the development of teaching-learning activities in the context of TVET systems or related to TVET provision).

In the light of the above TVET teacher education institutes have two main options for profiling themselves in the above mentioned dimensions:
a) **The first option** is to develop **TVET teacher education institutes** as **service providers** that rely on subject disciplines and general pedagogic know-how (without seeking to develop TVET-specific research culture as an expertise of its own quality);

b) **The second option** is to develop **TVET teacher education** as **centres of expertise with their own quality** based on TVET-related discipline structures, professional career prospects and research methodologies.

Without going into details it is worthwhile to note that **the first option** would position TVET teacher education as provider of **applied subject didactics** and/or of **applied pedagogic know-how**. This option doesn’t cater for systematic deepening of TVET-specific knowledge bases (e.g. regarding the future role of skilled workers and prospects for learning at the workplace).

**The second option** has been central to the work with the Hangzhou framework. The related key ideas (on academisation, professionalisation and innovations in educational practice) can be outlined in the following way:

1) In order to **upgrade the conceptual foundation** of TVET teacher education the programmes have to link this foundation to the professional experience of skilled workers. This requires systematic development of **vocational disciplines** as conceptual support for vocational and professional learning.

2) In order to **upgrade TVET teachers as educational professionals** the programmes have to develop common core principles for **vocational pedagogy** across different occupational sectors. This requires comparative and boundary-crossing analyses of teaching-learning arrangements in TVET systems and in the context of work-related learning.

3) In order to **enhance the role of TVET teachers as promoters of educational innovations** the TVET teacher education institutes have to strengthen their culture of research and knowledge utilisation. This requires systematic development of methodologies for **accompanying research** and for **reflective re-processing of research** findings from the perspective of developing teaching-learning designs.