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Position Paper

TVET Personnel Development within the Framework of ASEAN Integration

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1. Relevance and potential benefits

The development of TVET personnel is a high priority on the agenda of the ASEAN countries (Paryono 2013, 1), mainly for two reasons:

1. Regional integration: by facilitating the free flow of labour, ASEAN is working towards harmonisation and standardisation (ASEAN 2008, 16). Among other things, this endeavour includes TVET in a general sense, and, more specifically the development of TVET personnel.
2. Quality improvement: TVET personnel are a major foundation for both the quality of the TVET system and for economic and social development at national and regional level.

‘The prospects of deeper regional integration are vast. But whether the economic gains from deeper integration benefit all women and men will depend heavily on skills development policies. If the quality of education and training systems are enhanced and better aligned with national development objectives, ASEAN could become a regional production centre driven by skills, innovation and creativity.’ (ADB&ILO 2014, 64) Thus, the development of the national TVET systems plays an important role in implementing the economic, social and cultural development objectives of the ASEAN countries. As the quality of any system largely depends on the quality of those implementing it on a day-to-day-basis, the further advancement of any national TVET system relies on the motivation, competencies and commitment of the TVET personnel.



Figure: Interdependence of TVET quality and the achievement of development objectives

As seen in the outcomes of several important international meetings, congresses and corresponding declarations, TVET systems in the South East Asian states have not yet fully adapted to the new challenges arising with the introduction of the ASEAN Economic Community (AEC) and the ASEAN Social and Cultural Community (ASCC) in 2015. For example, the Hangzhou Declaration points to the ‘current fragmentation in the fields of teacher education / training of trainers for TVET’ (Hangzhou 2004). The Shanghai Consensus suggests ‘flexible pathways and the accumulation, recognition and transfer of individual learning through transparent, well-articulated outcome-based qualifications systems’ (Shanghai 2012), principles which

can be applied both in the design of TVET systems in general and TVET teacher education systems in particular. The Thanyaburi Statement states the ‘lack of highly qualified teachers and trainers’ in TVET as a ‘pervasive phenomenon in the emerging economies of East- and Southeast-Asia’ (Thanyaburi 2013). It also emphasises the ‘need of national policy and strategy regarding vocational teacher and trainer education and its monitoring and evaluation’ (Thanyaburi 2013). Last but not least, the Kuala Lumpur Declaration notes progress in many areas of TVET, but also recognises an ‘uneven progress among countries’, especially due to ‘weak technical, financial and institutional capacity, and lack of partnerships and coordination mechanisms involving government, employers, youth and other stakeholders’ (Kuala Lumpur 2015). The Declaration also points out that member states ‘should pay particular attention to teachers’ professional development’.

A common denominator in all declarations and statements is the high relevance of TVET personnel development. Improving the quality of TVET systems is a complex undertaking and requires action on different levels. As the quality of TVET personnel constitutes the underlying foundation of any TVET system and the availability of qualified and skilled TVET personnel determines the quality of TVET outcomes, the development of TVET personnel needs particular consideration. TVET personnel comprise teachers at schools, trainers in companies or training centres, and management staff in TVET institutions.

This paper aims to address this issue in the following sections:

- Chapter 2 provides an overview on the current status and challenges of the development of TVET personnel.
- Chapter 3 introduces areas for change with the key components required for professional TVET personnel development.
- The paper concludes with some theses meant to spark further discussions.

2. Overview: Current status and challenges of development of TVET personnel

2.1 Descriptions: Critical issues in current TVET personnel development

‘Who generalizes, generally lies’ – this quote by William Blake also reflects the fact that there is tremendous heterogeneity among different countries and their TVET systems in the ASEAN region. Thus, the following analyses can only provide a broad approximation of the TVET personnel situation. However, there are some issues and challenges that apply to many countries.

Figure 1 offers an overview of the critical challenges facing both teacher training and TVET programmes.

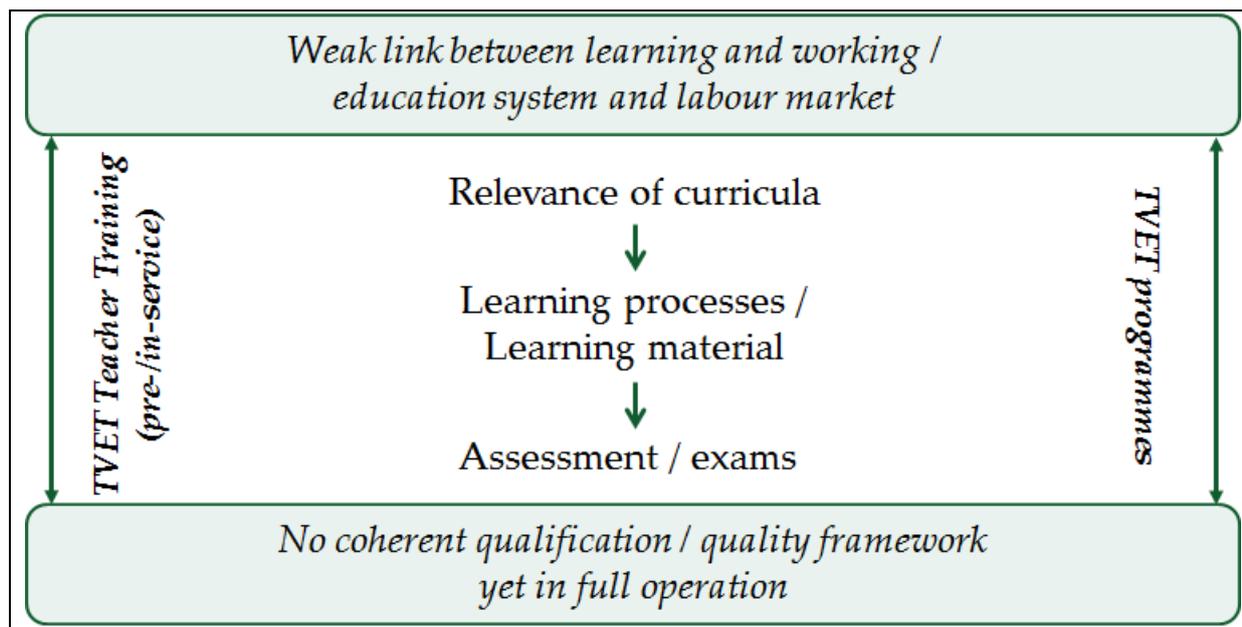


Figure 1: Challenges facing TVET personnel development

The circumstances described below basically apply to TVET teacher training programmes as well as TVET programmes. A close link exists between the two: What TVET personnel experience during teacher training programmes, they will most likely practice themselves when they serve as teachers in TVET programmes. If they are taught in the lecture mode, they can hardly be expected to shift to learner-centred methods when teaching their students or apprentices.

Overall, there is still a lack of linkages between TVET systems and the labour market. The educational system at universities or colleges (where most of the TVET personnel is trained) and at TVET schools (where TVET teachers are employed) is to a large degree detached from the economic system and the labour market (where graduates from TVET programmes seek employment). In many countries, it is difficult to link specialised TVET teacher training programmes to *practice in the workplace*. Even in advanced TVET systems, there is little evidence of industrial placements that would provide future teachers with current experience and work practices (Marope et al. 2015, 115). There is also no requirement for TVET teachers to have any workplace or industry experience. For many ASEAN countries, it is reported that TVET teachers have little or no industrial or technical experience in the areas in which they teach (Paryono 2015).

Closely related to the lack of exposure of TVET teachers to practical experience is the *curriculum of teacher training programmes*. In these programmes, quite often the academic model prevails and pushes practical skill training at the margins. Curricula primarily focus on the acquisition and memorisation of theories, neglect their application with regard to real life problems, and produce inert knowledge, which can be reproduced in exams but does not prepare learners to tackle practical challenges. Within these programmes, TVET pedagogy hardly exists. Vocational teachers are therefore doubly disadvantaged because they are not trained in how to apply work-

based learning methodologies, and do not have technical skills in the programmes in which they are required to teach (ADB 2014, 31).

Another weak point in the learning chain relates to the *quality of learning processes and learning material*. Many of the teacher-training institutions do not have adequate technical workshops in which teachers can develop technical skills. This has resulted in the teaching of only basic technical concepts, and has not equipped learners with the high-level skills sought by government or industry (ADB 2014, 29). Despite the widespread demand for a paradigm shift from a teacher-centred towards a learner-centred pedagogy, in many countries there is still a strong tendency to equate teaching and training in TVET with pure lecturing. This is often the least suitable preparation for working life and lifelong learning, where new problems and as yet unknown job and skill requirements will demand ongoing problem solving without external coaching (ILO 2010, 21). *Teaching and training materials* are often outdated and not relevant to what is needed for specific skills development with regard to work environments (ILO 2010, 21). Consequently, the *student assessment* follows the regulations of the curriculum and the culture of learning in the institutions. Assessment of teachers lacks validity in that technical skills and application are overlooked or not valued in their development process.

In addition, in many countries, there is not yet a coherent *qualification and/or quality framework* covering the (various) types of workplaces for TVET personnel. Such frameworks could provide standards for the various components of the learning chain and serve as a compass for shifting widespread practice in a new direction.

2.2 Implications: Vicious circle of low status and low quality

It is hardly surprising that the practices outlined above severely challenge the quality of both TVET teacher training programmes and vocational programmes. This adds to the fact that the attractiveness of TVET as opposed to academic pathways is limited. In many Asian countries, TVET is still not perceived to have value as general education. 'China and South Korea, for example, with their strong Confucian cultural heritage think of blue-collar workers such as technicians and labourers as lower-class and somehow despised by the general population.' (Ratnata 2013, 2) So, parents' first choice is to send their children to university. Many of them fail and then take their second option, which is one of the (mostly school-based) TVET programmes.

As a result of the low status of TVET, it has been reported from many countries that the motivation of TVET staff members remains low (UNESCO-UNEVOC 2012, 6, 21). Correspondingly, many countries face the problem of not being able to recruit an adequate number of highly qualified TVET teachers. In order to counteract the vicious circle of low status and low quality, both working conditions and recruitment practices have to be considerably improved.

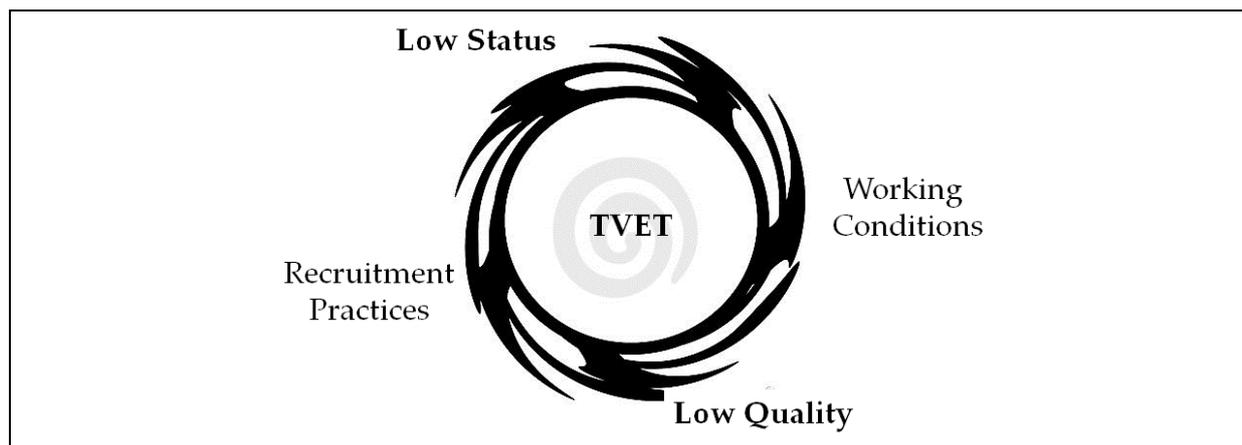


Figure: Vicious circle of low status and low quality in TVET

As to *working conditions*, an important component is the motivation of TVET personnel. Motivation relates to extrinsic and intrinsic factors, which can both be influenced from outside. Major extrinsic factors are the salary and outer working conditions. With regard to TVET personnel, two principles should be considered when taking action in this area:

1. Salaries of TVET personnel should at least compete with the remuneration received by teachers of general subjects at other secondary schools. In particular, issues of different terms for remuneration, promotion and benefits can be a source of frustration (Parayono 2015, 6, 10). This may lead to alienation and high rates of teacher turnover, especially when highly qualified TVET personnel can be tempted away by higher salaries in commercial enterprises (Maclean & Wilson 2015, 31).
2. Correspondingly, the teacher-student-ratio in TVET schools should be the same as those in other schools with students in the same age cohort.

With regard to intrinsic motivation factors, two aspects should be considered:

1. According to the 'theory of self-determination' (Deci & Ryan 1985; Deci, Connell & Ryan 1989), intrinsic motivation is promoted by granting individuals autonomy in their working processes, by providing opportunities for experiencing their own strengths and competences, and by embedding them in appreciative and rewarding social environments.
2. Attractive career paths and stages for becoming a TVET teacher or trainer should be established. Currently, there are few pre-service or in-service programmes for teachers and instructors that provide prospects for personal development and growth.

Although *recruitment of teachers* is to some degree closely connected to working conditions, it goes beyond this factor. Today, the majority of teachers are recruited through school or university systems, rather than from industry. The result is educational practices that are neither grounded in, nor applied to, technical pursuits, and which embody a subject-driven, classroom-centred approach to learning and skill

acquisition. In addition to the traditional recruitment methods, two further types of recruitment could be considered:

1. Skilled technicians or managers from industry;
2. Target groups with high aspirations of upward mobility (e.g. women, high achievers from rural areas).

Whereas the former group could considerably improve the relevance of TVET programmes, the latter group exhibits engagement, commitment and enthusiasm, because for them becoming a teacher is a chance to move up the societal status ladder. In order to attract people with extensive industry experience into the teaching profession, both customised teacher programmes and appropriate incentive schemes have to be established.

3. Areas for change: Moving towards professional TVET personnel development

3.1 Overview

The challenges analysed above can now be translated into approaches, which can in turn be discussed and transformed into activities to foster professional TVET personnel development. Next, an overview will be provided of both the challenges and potential approaches. Then, three major approaches will be highlighted and further elaborated. The first two are going to be discussed in specific sessions during the Regional TVET Conference 2015.

Challenges	Approaches
<ul style="list-style-type: none"> • Weak link between learning and working / educational system and labour market • Curricula only partly relevant for practice • Learning processes, learning materials and assessments not up to modern educational standards 	<p>Improve practice-oriented TVET personnel development by ...</p> <ul style="list-style-type: none"> • establishing social partnerships with companies and unions; • involving employers in the design and implementation of programme curricula for both TVET-students and TVET-teachers; • making future TVET-teachers experience and reflect on existing pedagogical practice in TVET institutions in order to avoid simple replication of their own experiences at school; • making curricula more relevant for labour market needs; • shifting learning methodology in pre-service and in-service personnel development towards student-centred approaches; • providing prototype training materials and assessments that authentically represent and model work processes in practice; • providing access to modern technology and equipment used in practice; • recruiting practitioners from industry to become teachers in TVET institutions.
<ul style="list-style-type: none"> • Lack of a coherent 	<p>Implement a unified system of quality and qualification frame-</p>

system of quality standards (for TVET personnel development) in the ASEAN countries	works by ... <ul style="list-style-type: none"> • improving regional cooperation and research; • making use of existing frameworks (namely QRF and QAF); • considering specific provisions for TVET personnel development within the frameworks.
<ul style="list-style-type: none"> • Limited attractiveness of working conditions for TVET personnel 	Implement efficient infrastructure and attractive working conditions for TVET personnel development by ... <ul style="list-style-type: none"> • organising TVET training provisions at different levels; • considering intrinsic and extrinsic motivation factors when recruiting and employing TVET personnel.

3.2 Improving practice-oriented TVET personnel development (session 1)

Links between learning and working. Due to the fast-changing labour market, TVET faces high expectations in terms of the degree to which the curricula are up to date. TVET institutions, including training institutions for TVET personnel, can only meet these expectations if they establish cooperation and organise involvement by industry and enterprises. With very few exceptions, the participation of industry in TVET activities, including TVET personnel development, is currently minimal. There are few opportunities, mechanisms, or policies that encourage industry participation, particularly by the private sector (e.g. companies providing internships for TVET teachers; participating in school projects; providing access to modern equipment and technology). As a result, teachers have very few opportunities to access or learn the technologies or work practices applied by industry (ADB 2014, 29f.). The Kuala Lumpur Declaration addressed this issue and called for ‘fostering interactions between key stakeholders in education and the world of work’ (Kuala Lumpur 2015).

In the 1960s, the international standards on teachers already called for programmes to include practical experience acquired in industry, commerce and agriculture (ILO & UNESCO 1966, 21; cited in ILO 2010, 13). Yet these aspects of training of teachers and trainers too often remain a missing link in designing innovative TVET schemes (Grootings & Nielsen 2005). Thus, one major requirement for improving the quality of TVET is the active participation of social partners in the design and implementation of programmes. Involving employers as well as trade unions by institutional means in assessing rapidly changing requirements of labour markets and designing programmes that respond to employment and workplace protection needs is widely perceived to be necessary to the responsiveness of TVET systems in general, and TVET personnel development in particular (CEDEFOP 2009; ILO 2010a; OECD 2009).

Correspondingly, it is not only important for TVET teacher training students to have experience with the working practice of their future students, but they also need to have early experiences with pedagogical practice in TVET institutions. Their views on teaching and learning are frequently derived from their own school backgrounds. This runs the risk of simply replicating old perceptions. In order to transcend these

perceptions, practical experience has to be reflected as part of TVET teacher training programmes.

This need has already been identified and partly implemented in some countries in South-East Asia. In Lao PDR, for example, German development cooperation supports the initial training of teachers in the TVET Teacher's Education Programme that supported the partners in Vientiane to update curricula, establish cooperation with the private sector and increase the percentage of work-based learning. Over the last three years, it was possible to increase the practical share of TVET teacher education from one month to six months for academic teacher training.

Relevant curricula. Relevant curricula for TVET personnel development express the link to practice in concrete terms. In TVET training programmes, practice has two different connotations: (1) Occupational practice as the ultimate yardstick for the determination of relevant content and competences the students and apprentices of the teachers and trainers shall acquire. (2) Pedagogical practice as the way of designing teaching and learning processes in educational institutions. Any curriculum for TVET training programmes should reflect these two reference points.

Collaboration between TVET training institutions and the private sector would help ensure that curricula are practical and aligned with market demand, for example if based on skill needs assessments of enterprises (ADB & ILO 2014, 69). Pedagogical practice would be reflected if the curriculum not only addressed content areas, but also learning outcomes in terms of problem-solving and self-learning skills, social competences and other key competences. It could stipulate and provide for the immersion of teacher students in both occupational and pedagogical practice through internships, projects, assignments, portfolios and other methods that require close contact with practice.

Learning methodology and materials. As TVET becomes increasingly more knowledge-oriented, the role of teachers and instructors must change from the didactic imparting of skills and knowledge to the facilitation of learning. In this process, pedagogical methods become more facilitative and experiential. Emphasis is placed upon learners demonstrating a mastery of skills to identify and solve specific problems, underpinned with applied theoretical awareness of key occupational concepts (ADB 2014, 32). This requires a major change on the part of TVET teachers and instructors. The increasing use of ICT and other media also contributes to this shift in teaching and learning methodologies.

The implementation of such strategies depends on qualified mentors and supervisors in TVET training programmes. Thus, not only the recruitment of candidates for the TVET training programmes is of high importance, but also the recruitment of master teacher trainers in the respective training institutions.

Apart from the frequently overly ambitious objectives related to eLearning and digital media, some comparatively basic provisions may considerably improve teaching and learning in TVET training programmes. One is the development and availability

of prototype training materials that model effective and responsive content, and the application of learner-centred approaches (e.g. cases, project assignments, challenging learning tasks, arrangements for learning environments, exam questions). The other provision relates to the lack of adequate facilities for implementing a teacher training that simulates practical problems. Many teacher training classrooms and technical workshops have limited materials and equipment. One approach to overcome this deficiency is the utilisation of industry facilities. This can help to avoid costly maintenance and ensure that TVET training programmes provide foundation skills, while industry provides the more specialised skills within the overall training programme.

In order to improve the focus on practice, special consideration could be devoted to the recruitment of skilled technicians or managers from industry to become teachers in TVET institutions.

3.3 Implementing a unified system of quality and qualification frameworks (session 2)

Quality improvement is key for the advancement of any TVET system. In addition to measures taken at the institutional level, the *ASEAN Qualifications Reference Framework (QRF)* and *Quality Assurance Framework (QAF)* are two instruments with the potential to spark quality development processes and contribute to the rise and harmonisation of quality standards in the region.

Qualifications Reference Framework (QRF)

A *National Qualifications Framework (NQF)* is an instrument for the classification of educational programmes according to a set of criteria, or criteria for the levels of learning outcomes achieved. The set of criteria can be made explicit in terms of a group of level descriptors (e.g. knowledge; skills; personal competence; social competence). The scope of NQF may be confined to a particular sector (e.g. higher education, TVET, secondary education) or comprehensive across all sectors in the education system. The QRF is a broad structure of levels of learning outcomes agreed upon by countries in a geographical area (e.g. Europe, ASEAN countries). NQF can be linked to a QRF by referencing the NQF level to the appropriate level in the QRF. So any educational programme has a position both in the NQF and in the corresponding level of the QRF. With the interim step of referencing, educational programmes from different countries become comparable in terms of the level they have been assigned in the QRF.

As such, QRF aims to provide a common reference point while accommodating the diversity of national training and qualifications systems, facilitate labour migration through fair and mutual recognition of competences, promote and encourage credit transfer, and promote higher quality.

In the ASEAN region, a QRF is in the process of being implemented (Bateman & Coles 2013). For TVET teacher education, there are two options to connect to the development of the ASEAN QRF:

1. The current specifications of the QRF (Bateman & Coles 2013) serve as a reference point, and national TVET teacher education programmes are assessed and assigned according to the criteria put forward in the QRF.
2. A separate, internationally accepted standard framework for TVET teacher education in the region is going to be developed. This specific framework then serves as a reference point for assessing and harmonising the national TVET personnel development programmes.

While option 1 is desirable, some research would have to be conducted to decide whether the level descriptors of the QRF are a good fit for the various TVET teacher education programmes in the region (Bateman & Coles 2013, 12).

Quality Assurance Framework (QAF)

Until recently, the setting of achievement standards, the development of qualifications frameworks, and the formalisation of quality assurance systems have mostly taken place at national level. This is especially the case with TVET systems, with their links to national economies and labour markets, national professional bodies, and regulations related to immigration and emigration. The globalisation of economies and the international flow of students and workers is now placing increasing importance on the effectiveness of qualifications and skills recognition across economic regions.

To improve the quality of teaching and training in TVET institutions, it is important to raise the standard of professionalism for vocational teachers and instructors by identifying a set of national standards that can be applied across the system. To improve the status of teachers, a licensing/professional certification and qualification system based on these standards should be introduced and managed. These standards would also form the basis for teacher development programmes.

With regard to quality assurance, a conceptual design for an East Asia Summit Technical and Vocational Education and Training Quality Assurance Framework (EAS TVET QAF) is ready for implementation (Bateman et al. 2012). The EAS TVET QAF provides a set of principles, standards and quality indicators to assist EAS countries in assessing the quality of their TVET systems and developing them accordingly, while also providing a basis for greater alignment among national TVET systems (Bateman et al. 2012, 4, 26ff.). Within this EAS TVET QAF, 'the quality of teaching staff' is one of the (input) themes. The indicators used to measure the teaching staff quality (1.3.1: investment in training of teachers; 1.3.2: recruitment and retention of high quality teaching staff) only superficially touch on the challenges of TVET teacher training, and do not provide relevant criteria to spark improvements in this area.

If the existing framework is not fully applicable to the quality development purposes of TVET personnel development, quality standards and criteria would have to be

designed, agreed on and authorised. In this regard, it would have to be decided where there should also be standards of excellence in addition to minimum standards. The two sets of standards would serve different purposes. Whereas the latter is to safeguard a lower threshold of quality, the former defines ambitions for high performing programmes and institutions.

Relevant standards can be derived from different sources. One starting point relates to the key components of a professional TVET personnel development approach outlined in the previous chapter. All components can be translated into standards, criteria and indicators. As further sources of reference, there are 'criteria for good teachers and trainers in TVET' (ILO 2010, 19f.), 'knowledge bases' a TVET teacher should have (Turner-Bisset 2001, 13ff.), and good practices from different countries (ADB 2014, 32).

One major ingredient of any QAF relates to the question: Which competences should a TVET teacher or trainer possess and how do TVET personnel development programmes facilitate the acquisition of such competences? One approach to answering this question was already discussed in 2004 at the UNESCO International Meeting on Innovation and Excellence in TVET Teacher / Trainer Education in Hangzhou. Participants at this meeting discussed the development of a framework curriculum for a master's degree in TVET (Hangzhou 2004, 13ff.). In more generic terms, Figure 2 outlines a framework of the areas of competence suitable for defining specific profiles of TVET teacher training programmes at national level.

FOCUS	Theory	Practice
Expertise domain	Subject specific technical / expert knowledge	Subject-specific teaching methods
Vocational pedagogy	e.g. Vocational educational psychology; workplace learning theory; curriculum development; assessment theory	e.g. Teaching skills; assessment skills and techniques; management of teaching programmes; (integrative) use of digital media
Context	e.g. Knowledge on the interaction between TVET and economy / society; Ability to reflect on own practice („reflective practitioner“)	e.g. Skills to collaborate / network with key stakeholders (esp. enterprises); Motivation and commitment for continuous improvement of working environment

Figure 2: Areas of competence to be facilitated by TVET personnel development programmes

Some substantial answers to the questions raised are provided by the 'Standard for In-Company Trainers in ASEAN Countries', which has been regionally developed with support from the German development programme on 'Effective In-Company Vocational Training in the Mekong Region'. In an inclusive, participatory and dia-

logue-oriented process, partners from across the ASEAN region developed a standard, with support from GIZ, that aims at supporting cohesion between education and training systems and the labour market by synchronising educational standards and work demands in the ASEAN countries.

Another effort is being undertaken by the 'Regional programme to improve the training of TVET personnel' (RECOTVET). This programme aims at developing a regional core standard for TVET teachers in ASEAN. Along with participants from eight ASEAN member states and with SEAMEO Voctech, they are aiming to draft common criteria for the qualification of TVET teachers in order to eventually increase comparability and harmonisation of TVET systems in South-East Asia.

3.4 Implementing efficient infrastructure and attractive working conditions for TVET personnel development

In addition to quality standards linked to TVET (personnel development) programmes, an efficient infrastructure measures and attractive working conditions have to be implemented. At the organisational level, some of the following provisions are desirable:

- The core of the institutional infrastructure is TVET teacher training institutions. Ideally, institutions with different foci are placed on different levels. At the central level, across the country a kind of teacher training academy could run programmes of excellence for advanced TVET personnel (e.g. top teachers, headmasters, staff for challenging management and QA tasks) and the training of master's degree teachers. The academy could be part of a university or offer its own university degrees. The positioning of TVET personnel development at the university level is crucial, as this may positively influence the perception and status of TVET and consequently make it easier to attract excellent candidates for teacher training programmes.
- At regional level (e.g. provinces), pre-service and in-service programmes for the training of TVET personnel are being operated. At the next level, regional centres take responsibility for quality assurance and monitoring of the educational institutions in their region.
- Finally, at the local level of educational institutions (especially TVET schools), concerted measures aimed at organisational and personnel development are applied to put concepts and competences acquired at central or regional level into practice.

As pointed out in chapter 2.3, the recruitment of highly qualified personnel depends on the attractiveness of the workplace and employment. Thus, the following characteristics of an attractive working environment are to be considered when striving to attract top staff to the TVET institutions:

- Motivational portfolio of tasks, taking into account the intrinsic aspects of work satisfaction (see chapter 2.3).

- Adequate salary, at least on the level of comparable professions.
- Attractive career paths and opportunity for advancement.
- Attractive certificates and degrees when completing pre-service and in-service programmes.
- Job security.
- Allowing for flexible employment arrangements (e.g. part-time employment).

4. Theses for discussion

The following four theses bring together the arguments from the previous chapters and suggest priority areas for taking action.

Thesis 1: TVET personnel development programmes urgently need to expose students to occupational and pedagogical practice. The experiences gained in practice then need to be supplemented by deep reflection and a link to relevant theories.

Thesis 2: There is a need for the development of specific quality standards for TVET personnel development, which should be stipulated in (qualifications and quality assurance) frameworks accepted by the ASEAN countries. The criteria should be specific to TVET and include comprehensive competence profiles for TVET personnel.

Thesis 3: A strong organisational infrastructure is vital for the advancement of TVET personnel development. Two components of this infrastructure are (1) dedicated TVET teacher training institutions at central, regional and local level, and (2) an anchoring of TVET personnel development in universities.

Thesis 4: In order to recruit and retain highly-qualified TVET personnel, working conditions have to be designed in a welcoming and attractive way. In particular, great emphasis should be put on the recruitment of TVET personnel with occupational experience.

References

- ADB – Asian Development Bank (2014). Technical and Vocational Education and Training in the Socialist Republic of Viet Nam. Mandaluyong City: ADB.
- ADB & ILO – Asian Development Bank / International Labour Organization (2014). ASEAN Community 2015: Managing Integration for better jobs and shared prosperity. Bangkok: ILO and ADB.
- ASEAN (2008). ASEAN Economic Community Blueprint. Jakarta: ASEAN Secretariat.
- Bateman, A. & Coles, M. (2013). ASEAN Qualification Reference Framework. Education and Training Governance: Capacity Building for National Qualifications Frameworks. Consultation Paper. Coles Ltd. Online : http://ceap.org.ph/upload/download/20138/27223044914_1.pdf (retrieved 20.7.2015)
- Bateman, A., Keating, J., Gillis S., Dyson, C., Burke, G. & Coles, M. (2012). East Asia Summit Vocational Education and Training Quality Assurance Framework. Concept Paper. Online: http://www.unevoc.unesco.org/e-forum/120619%20-%20East%20Asia%20Quality%20Assurance%20Framework_final%20concept%20paper_post%20workshop.pdf (retrieved: 20.7.2015)

- CEDEFOP – European Centre for the Development of Vocational Training (2009). *Modernising vocational education and training: Fourth report on vocational training research in Europe: Background report, Vol. 2, CEDEFOP Reference Series 70*. Luxembourg: Office for Official Publications of the European Communities.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74, 580–590.
- Grootings, P.; Nielsen, S. (eds). (2005). *ETF Yearbook 2005 – Teachers and trainers: Professionals and stakeholders in the reform of vocational education and training*. Turin: European Training Foundation.
- Grunwald, E., Nell, M. & Shapiro, J. (2004). *Work in Progress. LearnNet - The Learning Network Approach: Towards a solution to the challenges of effective mass skills development*. GIZ working paper. <http://www2.giz.de/wbf/4tDx9kw63gma/Arbeitspapier-LearnNet-2004-12-mit-cover.pdf> (retrieved 10.7.2015).
- Hangzhou Declaration (2004). Online: <http://unesdoc.unesco.org/images/0014/001480/148003eo.pdf> (Retrieved 26.10.2015).
- ILO – International Labour Organization (2010). *Teachers and trainers for the future – Technical and vocational education and training in a changing world*. Geneva: International Labour Office.
- ILO – International Labour Organization (2010a). *A skilled workforce for strong, sustainable and balanced growth: Proposals to G20 leaders for a training strategy, June 2010 (Geneva)*, www.ilo.org/public/libdoc/jobcrisis/download/g20_skilledworkforce.pdf (retrieved 12.3.2012).
- Kuala Lumpur Declaration (2015). Online http://www.bibb.de/dokumente/pdf/2015_KL_Declaration.pdf (Retrieved 26.10.2015).
- Maclean, R. & Wilson, D.N. (Eds.) (2015). *International Handbook of Education for the Changing World of Work: Bridging Academic and Vocational Learning*. Springer. http://www.unevoc.unesco.org/fileadmin/user_upload/pubs/Handbook_Introduction_RM_DW.pdf
- Marope, P.T.M., Chakroun, B. & Holmes, K.P. (2015). *Unleashing the Potential Transforming Technical and Vocational Education and Training*. UNESCO/UNEVOC. <http://unesdoc.unesco.org/images/0023/002330/233030e.pdf>.
- Ministry of Education (2007). *Strategic Plan for the Development of TVET from 2006 to 2020*. Vientiane: Ministry of Education. http://planipolis.iiep.unesco.org/upload/Lao%20PDR/Lao_PDR_TVET_Strategic_plan_2006-2020.pdf (retrieved 10.7.2015).
- Nielsen, S. (2011). *TVET teachers and trainers*. Background paper commissioned by UNESCO Education Sector.
- OECD - Organisation for Economic Co-operation and Development (OECD) (2009). *Learning for Jobs: OECD Policy Review of Vocational Education and Training*. Paris: OECD.
- Parsons, D.; Hughes, J.; Allinson, C.; Walsh, K. (2009). *The training and development of VET teachers and trainers in Europe*, in Cedefop - European Centre for the Development of Vocational Training (ed.), *Modernising vocational education and training: Fourth report on vocational training research in Europe: Background report (pp. 79–156), Vol. 2, CEDEFOP Reference Series 70 (Luxembourg, Office for Official Publications of the European Communities)*.
- Paryono (2013). *Mapping national and regional TVET initiatives in Southeast Asia and beyond in response to students and labour mobility*. In: *TVET@Asia, issue 1, 1-8*. Online: http://www.tvet-online.asia/issue1/paryono_tvet1.pdf (retrieved 6.7.2015).
- Paryono, P. (2015). *Approaches to preparing TVET teachers and instructors in ASEAN member countries*. In: *TVET@Asia, issue 5, 1-27*. Online: http://www.tvet-online.asia/issue5/paryono_tvet5.pdf (retrieved 23.07.2015).
- Ratnata, I.W. (2013). *Enhancing the image and attractiveness of TVET*. In *TVET@Asia, issue 1, 1-13*. Online: http://www.tvet-online.asia/issue1/ratnata_tvet1.pdf (retrieved 15.7.2015).

Shanghai Consensus (2012). Online:

<http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/concensus-en.pdf> (Retrieved 26.10.2015).

Stanley, J. (2013). Global Validation Workshop on Policies and Practices on TVET Teachers and Instructors in the Arab Region, a Regional Study. Final Report. Paris, UNESCO. Online:

http://www.unevoc.unesco.org/fileadmin/up/validation_workshop_report_-_29th_october_eng.pdf (retrieved 15.7.2015).

Thanyaburi Statement (2013). Online: <http://www.rcp-platform.com/wp-content/uploads/2013/02/Thanyaburi-StatementBangkok18.01.2013.pdf> (Retrieved 26.10.2015).

Turner-Bisset, R. (2001). Expert teaching. Knowledge and pedagogy to lead the profession London: David Fulton Publishers.

UNESCO-UNEVOC (2012). Synthesis report TVET Teacher Education in the 10 Participating Countries. Online:

http://www.unevoc.unesco.org/fileadmin/user_upload/docs/Synthesis_report_SEAMEO_VOCTEC_H.pdf (retrieved 10.7.2015).