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# **Integrating core work skills into TVET systems: Six country case studies**

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## Foreword

Countries across the world are looking to implement strategies that improve both the employment prospects of young women and men and the productivity of enterprises. Central to both these outcomes is a solid foundation of core skills as a major contributor to employability, along with access to education, availability of training opportunities, and the motivation, ability and support to take advantage of opportunities for continuous learning.

In 2013 the ILO prepared the *Guide to core work skills* to help key stakeholders better understand what core work skills are, their importance, and ways in which these skills can be delivered, attained and recognized. While a considerable literature exists on how to address core skills through the educational curriculum, there is less material available to guide policy-makers on how to integrate core skills into education and training systems. This paper seeks to fill this gap.

While most attention has hitherto been given to general education systems, technical and vocational education and training (TVET) and skills development have equally central roles to play in the development of core skills for employability. Quality, demand-driven TVET and skills development, both in and out of school, are potentially among the most important tools for equipping young people with the skills they will need. Consequently, core skills are assuming increased importance and significance in the TVET and skills sectors.

This report assesses the extent to which six diverse countries have embedded core skills for employability in their TVET and skills systems: Australia; Chile; India; Jamaica; Malawi; and the Philippines. These six case studies have demonstrated that in both developed and developing countries, much remains to be done to ensure that TVET and skills systems adequately and systematically take steps to develop the core skills that so profoundly enhance the employability of learners, jobseekers and workers.

We are grateful to Laura Brewer, Specialist in Skills for Youth Employment (ILO Geneva) and Paul Comyn, Specialist in Vocational Training and Skills Development (ILO New Delhi) for undertaking this research. We would also like to thank the consultants who prepared the case studies: Andrea Bateman (Australia), Marcela Arellano Ogaz (Chile) Anand Shukla (India), Paul Payne (Jamaica), Jones Chafa (Malawi) and TESDA under the supervision of Irene Isaac (Philippines). Colleagues in the field and HQ also provided invaluable direction. We particularly acknowledge Hassan Ndahi, Ashwani Aggarwal, Fernando Vargas, Akiko Sakamoto and Amy Torres for quality control of the country studies in their respective regions. The financial support received from the Japanese government under the ILO/Japan Regional Skills Programme which funded the two Asian case studies is much appreciated.

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## Acronyms

ACSF	Australian Core Skills Framework
ADEA	Association for Development of Education in Africa
AQF	Australian Qualifications Framework
AUD	Australian Dollars
CBET	Competency- based education and training
CBLM	Competency-based learning material
CCE	Continuous and Comprehensive Evaluation
CII	Confederation of Indian Industry
CNIC	National Innovation Council for Competitiveness
CSfW	Core Skills for Work Developmental Framework
CTS	Craftsmen Training Scheme
DGET	Directorate General of Employment and Training
EC	European Commission
EU	European Union
GDP	Gross Domestic Product
GTZ	German Technical Cooperation
HEART	Human Employment and Resource Training
ICT	Information Communication Technology
IDB	Inter-American Development Bank
ILB	Industry Lead Body
ILO	International Labour Organization
ISC	Industry Skills Council
IT	Information Technology
ITI	Industrial Training Institute
KEKL	Kanumuru Education and Knowledge Limited
LMS	Labour Market Survey
MES	Modular Employable Scheme
MHRD	Ministry of Human Resource Development
Mineduc	Ministry of Education (Chile)
MoLE	Ministry of Labour and Employment
NCTVET	National Council for Technical and Vocational Education and Training
NCVT	National Council for Vocational Training
NIMI	National Institute of Manpower Instruction
NITTTR	National Institutes of Technical Teachers' Training and Research

NOS	National Occupational Standards
NQC	National Quality Council
NQF	National Qualifications Framework
NSDC	National Skill Development Corporation
NSO	National Statistics Office
NSQF	National Skills Qualification Framework
NSSC	National Skills Standards Council
NTA	National Training Agency
NTR	No Training Regulations
NVEQF	National Vocational Education Qualification Framework
NVQ	National Vocational Qualification
NVQ-J	National Vocational Qualification-Jamaica
NVR	National VET Regulator
OECD	Organization for Economic Cooperation and Development
PTQF	Philippine TVET Qualifications Framework
SADC	Southern African Development Community
SCANS	Secretary's Commission on Achieving Necessary Skills
SENCE	National Training System in Chile
SIMCE	National Assessment System for Education Results
SSC	Sector Skills Council
TESDA	Technical Education and Skills Development Authority
TEVET	Technical, Entrepreneurial and Vocational Education and Training
TEVETA	Technical, Entrepreneurial and Vocational, Education and Training Authority
TQF	TEVET Qualifications Framework
TRs	Training regulations
TVET	Technical Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training
VTDI	Vocational Training Development Institute
WEST	Wheebox Employability Skills Test
WHO	World Health Organization
WTR	With Training Regulations



## 1. Background

Countries across the world are looking to implement strategies that improve both the employment prospects of young men and women and the productivity of enterprises. Central to both these outcomes is a solid foundation of core skills as a key factor of employability, along with access to education, availability of training opportunities, and the motivation, ability and support to take advantage of opportunities for continuous learning.

In order to secure that first job and to find their way around the labour market, young women and men need not only the technical skills that equip them to perform specific tasks but also the core work skills<sup>1</sup> that equip them to perform effectively in contemporary workplaces. These core skills, which include learning to learn, communication, problem-solving and teamwork, are of critical importance for both workers and the enterprises that employ them, enabling workers to attain decent work and manage change, and enabling enterprises to adopt new technologies and enter new markets.

The increasing attention given to core skills for employability has its origins in the global economic recession of the 1970s, which generated structural youth unemployment and triggered widespread industrial reform. Since then, globalization, the growth of the service sector, and new forms of work and work organization have contributed to the demand for core skills. The literature surrounding industrial and enterprise development since that time has also drawn increased attention to core skills for employability, particularly through the work on “flexible specialization” (Piore and Sabel, 1984), “learning organizations” (Senge, 1990) and “knowledge workers” (Drucker, 1969).

The subsequent debate on the role of education in this changed economic environment gave greater significance to inputs from the business community and resulted in the “new vocationalism” of competency-based education and training (CBET) reform in the 1990s and after. These developments in turn gave rise to the first generation of core skill classifications, which included “necessary skills” (identified by the Secretary’s Commission on Achieving Necessary Skills, SCANS, which was set up for the purpose) in the United States, “core skills” in the UK and “key competencies” in Australia. While these and other attempts to specify core skills for employability and integrate them into education and training arrangements were sustained over the subsequent two decades, Bowman (2010) suggests that it is only relatively recently that generic skills have received explicit attention in all forms of education and on an international scale. More recent labour market trends have been identified as leading to a renewed interest in core skills. These include:

- widespread and growing access to computers and information communication technologies (ICTs);
- the use of ICTs to change how services are provided and consumed;
- growing employment in services and high-skilled occupations;
- widespread imbalances between the supply of and demand for skills; and
- greater youth unemployment, which grew by 4 million between 2007 and 2014 (UNESCO, 2014).

Recent employer surveys indicate that occupation-specific skills are no longer sufficient to meet the needs of the labour market (OECD, 2012); in survey data from nine countries,<sup>2</sup> 57 per cent of

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<sup>1</sup> The ILO uses the terms “core work skills” and “core skills for employability” interchangeably.

<sup>2</sup> Brazil, Germany, India, Mexico, Morocco, Saudi Arabia, Turkey, the UK and the US.

employers indicated they could not find the skilled entry-level workers they needed (Mourshed et al., 2012). The skills in demand are increasingly core skills for employability. Table 1 sets out the main types of skills required in today's world of work.

**Table 1. Skills for the world of work**

Type of skill	Definition
Basic/foundation skills	The literacy and numeracy skills necessary for getting work that can pay enough to meet day-to-day needs. These skills are also a prerequisite for continuing in education and training, and for acquiring other vocational, professional and core work skills that enhance the prospect of getting a good job
Vocational or technical skills	Specialized skills, knowledge or know-how needed to perform specific duties or tasks
Professional or personal skills	Individual attributes relevant to work, such as honesty, integrity, work ethic
Core work skills	The abilities to learn and adapt; to read, write and compute competently; to listen and communicate effectively; to think creatively; to solve problems independently; to manage oneself at work; to interact with co-workers; to work in teams or groups; to handle basic technology; and to lead effectively, as well as follow supervision

While there is significant commonality between the skills included in different national approaches to defining core skills, the terms used to describe them vary considerably. Table 2 lists some of the terms most commonly used around the world today to describe this type of skill.

**Table 2. Terms commonly used to denote core skills**

Country/region/organization	Term
Australia	Generic skills
France	Transferable skills
Germany	Key qualifications
Latin America	Work competencies
New Zealand	Essential skills
Singapore	Critical enabling skills
Switzerland	Trans-disciplinary goals

United Kingdom	Core skills
United States	21st-century skills
ASEAN	Employability skills
ILO	Core skills for employability
OECD	Key competencies

In 2013 the ILO prepared the *Guide to core work skills* (Brewer, 2013) to help key stakeholders to a better understanding of what core work skills are, their importance, and ways in which these skills can be delivered, attained and recognized. The guide illustrates various ways of integrating employability skills into the delivery, assessment and certification of general education and vocational training, rather than through a separate “core skills curriculum”.

The guide reviewed a wide range of teaching methodologies and training techniques, confirming that imparting such skills requires innovative ways of delivering and assessing training that combine core skills and technical skills in the so-called “integrated approach”. While a considerable literature exists on how to address core skills through teaching and learning practices there is less material available to guide policy-makers on how to integrate core skills into education and training systems (Brewer, 2013).

## 2. The role of Technical Vocational Education and Training (TVET) and skills systems

Quality primary and secondary education, complemented by relevant vocational training and skills development opportunities, prepare future generations for their productive lives, endowing them with the core skills that enable them to continue learning (ILO, 2010).

Quality, demand-driven TVET and skills development, both in and out of school, are potentially among the most important tools for equipping young people with the skills they will need. Consequently, core skills are assuming increased importance and significance in the TVET and skills sectors.

While most attention has hitherto been given to general education systems, TVET and skills training have equally central roles to play in the development of core skills for employability. Developing core skills and ensuring lifelong learning for all presents major challenges for training systems. As well as ensuring quality basic education through the general education system, it is particularly important to change learning practices in such a way as to equip people better for work (with more emphasis on learning by doing, working in teams and thinking creatively) and to develop reliable and efficient assessment methods so that the skills developed can be properly recognized and valued by employers.

Although each country’s economic situation is particular to itself, it is important to identify, define and apply what can be considered the basic principles of an effective TVET and skills system, as the presence or absence of these will determine the extent of the core skills implementation challenge in each national environment. Key principles inherent in a successful TVET and skills system include:

- relevance to the labour market;
- strong involvement of the private sector;

- good access for trainees;
- high quality of delivery;
- secure and uninterrupted financing; and
- inclusion of core work skills.

The development of each national or regional system needs to be adjusted to best fit the needs of the country or region and the priorities set by government(s) and social partners. This report aims to focus on how core skills can be introduced into TVET and skills systems as part of on-going reform efforts in all contexts.

### 3. What we know about the implementation of core skills in TVET and skills systems

The literature on core skills implementation is, perhaps not surprisingly, mainly limited to developed countries, as they have led implementation efforts to date. Table 3 lists a number of major initiatives that have sought to define core skills and, to varying degrees, integrate them into education and training systems.

**Table 3. Examples of core skills initiatives from around the world**

Country	Core skills initiative
Australia	Mayer Key Competencies
Canada	Strategy for Prosperity
Denmark	Process Independent Qualifications
Italy	Transversal Competencies
Netherlands	Core Competencies
New Zealand	Essential Skills
Singapore	Critical Enabling Skills Training (CREST)
South Africa	Critical Cross Field Outcomes
United Kingdom	Core Skills
United States	Secretary’s Commission on Achieving Necessary Skills (SCANS)

Although these initiatives span the last two decades, no comprehensive international assessment of implementation experiences is available. In general, UNESCO (2015) notes that TVET systems may not as yet sufficiently support the development of the so-called “soft” competencies. However, the recent impetus given to core skills/key competency implementation in the European Union (EU) has given rise to more detailed cross-country analysis from that region.

In a report focusing on assessment of core skills, the European Commission (EC) noted that “implementation of key competences in schools and training institutions is a complex and demanding process, and the presence of strong political commitment is not in itself enough to achieve the goal of effective core skills development” (EC, 2012, p. 13).

Several reports on the extent to which generic skills have been integrated into TVET systems have demonstrated that while various skills may be prioritized and identified in qualification or curriculum profiles, corresponding arrangements for delivery, assessment and reporting of these skills are often lacking. If integration is to be effective, there is clearly an overriding need for an implementation strategy based on a comprehensive approach that covers all elements of the education system.

Comyn (2005) has argued that the absence of fully developed implementation strategies reflects the fact that generic skills are often embraced rhetorically by the state in the context of school reform to satisfy the concerns of business, rather than being at the centre of a genuine initiative to improve the quality of teaching and learning. Certainly, implementation of core skills delivery throughout TVET and skills systems poses substantial challenges, potentially affecting some or all of:

- curriculum structures;
- classroom practice;
- teacher training and professional development;
- institutional management; and
- assessment and reporting arrangements (Smith and Comyn, 2003).

Given the complexity of the implementation challenge, especially if national assessment and reporting of core skills are included, implementation can also lead to additional costs and, as noted by Comyn (2005) in the case of Australia, industrial issues as a result of teacher concerns over additional workload. However, the European experience suggests that reforming assessment does not necessarily have major financial consequences if reforms build on existing expertise and structures. However, developing e-assessment (which has underpinned the more extensive examples of implementation) does require infrastructure, development work, training and social marketing (EC, 2012, p. 4).

In a more recent cross-country analysis in the Asia–Pacific region, UNESCO (2014) recently summarized the major challenges to implementation in this context as follows:

- disagreement on responsibility for imparting transferable skills in TVET;
- rigid and heavy curricula that impede innovative teaching and learning;
- lack of capacity to develop and/or apply innovative teaching methods; and
- lack of adequate assessment methods.

In relation to the Mayer Key Competencies in Australia, Comyn (2005) noted that, despite significant and rigorous research on various options for the national delivery, assessment and reporting of generic skills, implementation efforts were fundamentally weakened by the failure of industry to express any continuing support for the key competencies after a programme of trials had finished, an outcome that called into question the level of support that had actually existed during development.

Commenting on the SCANS initiative in the United States, Stasz noted that “the lack of a clear and common conceptual framework for defining and assessing skills has been especially problematic for school reformers” (1998, p. 189). Indeed, while the OECD's DeSeCo project is a notable exception,<sup>3</sup>

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<sup>3</sup> DeSeCo: Definition and Selection of (key) Competencies.

many attempts to draw up lists of generic skills have proceeded without clear conceptual and theoretical foundations. The EC noted that the challenge surrounding implementation of transferable skills is compounded by the range of different perspectives from which these skills can be viewed and analysed (EC, 2011, cited in UNESCO, 2014). The development of clear conceptual and theoretical foundations involves a number of issues, which the OECD has identified as including:

- “whether a normative, philosophical or socially critical frame of reference is adopted or whether they are based simply on the observation of practices;
- the level of abstraction and generality with which key competencies are defined;
- the hypothetical structure underlying key competencies;
- the extent to which psychological features can be modified through learning; and
- how they can be acquired through planned instructional programs” (Rychen and Salganik, 2003, p. 8).

The OECD’s DeSeCo project found, for example, that while the lack of an agreed definition of competence can be overcome, considerable disagreement remains about which competencies should be designated as key (Weinert, 2001). The shortcomings in policy responses evident in the literature are in part related to the difficulties associated with defining a set of generic skills.

In some countries, progress on national frameworks for transferable skills is hampered by the absence of university faculties conducting research in TVET to determine the relevance of these skills to the national context (UNESCO, 2014). In its 2015 monitoring report on vocational education and training policies, CEDEFOP acknowledged that the importance allocated to key competencies varies between different occupation groups and job functions (CEDEFOP, 2015). With reference to the Asia–Pacific region, UNESCO noted that, “while some countries have developed and are now implementing and refining the concept, others are only beginning to examine and develop this new skill dimension at policy levels and pilot it in educational practices” (2014, p. 20).

The EU has arrived at an agreed definition for key competencies among member states (EC, 2006); as a result of the commitment to progress implementation made in that document, CEDEFOP has observed that in all EU member States, key competencies are part of TVET curricula, whether as discrete subject areas, as underlying principles/learning outcomes across a range of subject areas, or as integral elements of vocational subjects (CEDEFOP, 2015, p. 31). It has further established that more than 50 per cent of EU countries have included key competencies in the level descriptors of their national qualification frameworks (ibid, p. 32).

The key challenge has been identified as encouraging and supporting member states to assess all the competencies. While acknowledging the centrality of assessment as a driver of core skills implementation, the EC has noted that states “need to move from a static conception of curricular content to a dynamic combination of knowledge, skills and attitudes appropriate to the many and varied real life contexts in which people need to use them” (EC, 2012, p. 3). The EC recognized that in this more dynamic curriculum model, assessing learners’ key competencies is a complicated and challenging task involving:

- defining key competencies as tangible learning outcomes;
- using assessment to measure learning outcomes;
- using assessment to encourage the development of key competencies during training delivery; and
- mainstreaming assessment of key competencies (ibid, pp. 12–50).

It further notes that “a large number of countries are introducing reforms that explicitly use the Key Competences framework as a reference point. Good progress has been made in adapting school curricula. But there is still much to be done to support teachers’ competence development, to update assessment methods and to introduce new ways of organizing learning” (ibid, p. 7).

UNESCO also found that the challenge of identifying adequate measurement and assessment methods is closely linked to the difficulty of defining transferable skills, and noted that many challenges associated with transferable skills in TVET can be said to originate in the education and training of vocational teachers (2014, p. 29). These are issues that parallel the European experience. Notably, CEDEFOP cites evidence from Europe suggesting that while training of teachers and trainers on key competencies is organized when curricula are revised, countries do not report on whether it is provided regularly once the curricula have been introduced (2015, p. 32).

Lifelong learning strategies and educational development plans are important in providing adult learners in particular with opportunities to improve core skills for employability. CEDEFOP notes that about half of EU countries have adjusted these strategies to place even more emphasis on key competencies or to introduce or reinforce particular ones, such as career management skills (CEDEFOP, 2015, p. 31). CEDEFOP also found that work-based learning is increasingly understood as a way of acquiring skills. However, as recent experience in implementing the “21st century skills” initiative in the United States demonstrates, policy-makers need to support incentives for employers to provide work-based experience and professional development opportunities for teachers and other staff, so they are aware of the latest skills, industry requirements and technologies (ACTE, 2010).

In conclusion, the literature has identified a number of factors that influence the implementation of core skills in TVET and skills systems. These include:

- the historical and institutional contexts, including the degree of autonomy that TVET institutions have in shaping or adjusting programmes and curricula;
- the different methods of introducing and monitoring change in education and training systems; and
- the relative importance given to: new curricula and guidelines, teaching/learning documents or textbooks; new assessment tools for formative and summative assessments; and/or training schemes for teachers and school leaders.

In its review of Asian implementation experiences, UNESCO identified the following policy challenges:

1. The need to improve access to innovative, good-quality secondary and post-compulsory education to enable young people to develop core skills, and to ensure that more of them take part in and complete their courses.
2. The need to increase opportunities for disadvantaged young people to acquire core skills, including those who have dropped out of or never attended school, and those working in the informal economy in poor conditions.
3. Obtaining recognition of core skills acquired at work and outside the workplace (2014, p. 34).

In those systems where implementation has been more comprehensive, the following factors have been identified as conducive to success:

- setting appropriate curriculum goals and standards;
- developing teacher competencies to address the delivery and assessment of core skills;
- shaping school practices:

- supporting innovation;
- linking implementation with school development;
- leadership; and
- giving appropriate feedback through assessment and evaluation.

While these principles can be applied to any process of educational reform, they highlight the need for a comprehensive approach to introducing core skills, a process that even after more than 30 years of policy debate can only be told through a few examples.

## 4. Case studies of core skills integration

### Introduction

In the global context of piecemeal implementation outlined above, this report assesses the extent to which six diverse countries have embedded core skills for employability in their TVET and skills systems. The studies were commissioned by the ILO; in each case, the researchers requested a succinct analysis of policies put in place to include these skills in national training systems. While attention was focused on TVET and skills systems, some attention was also given to TVET programmes delivered in schools, provided they had a clearly stated goal of generic skills development. The treatment of core skills in the higher education sector through initiatives such as graduate ability profiles was not considered.

The six countries examined were:

- Australia
- Chile
- India
- Jamaica
- Malawi and
- the Philippines

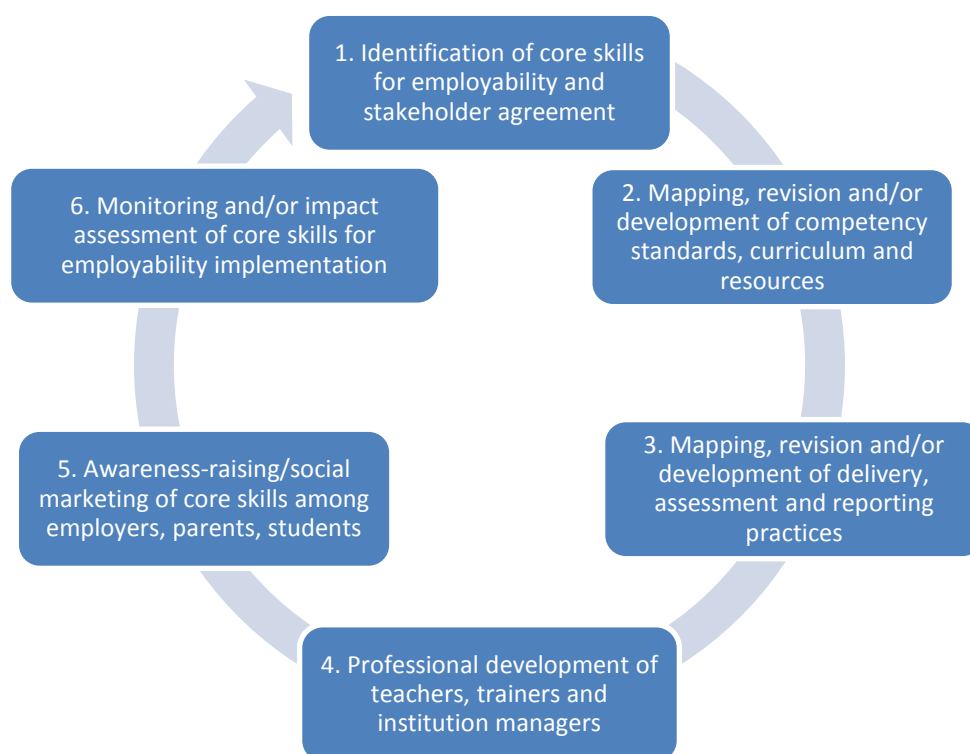
The full case studies are included in the annex.

The case studies were developed using the policy life-cycle approach, developed by Smith et al. (2009) and the key stages of generic skills implementation in Comyn (2005).

A successfully implemented comprehensive strategy is presumed to be one that has progressed through the full policy cycle shown in Figure 1.



**Figure 1. A policy life-cycle approach to core skills implementation**



## Methodology

Each case study was developed by consultants who were nationals of, working in and familiar with the TVET and skills system of the country concerned. The case studies were developed using a combination of desktop research and documentary review supplemented by interviews and/or questionnaires to gather the opinions of a variety of stakeholders including policy-makers, researchers, training organizations, and employers' and workers' organizations. The final draft case study was in each case then validated by a second consultant working in and familiar with the TVET and skills system of that country. Critical technical comments were also provided by the ILO skills specialists covering the respective countries. The case studies were structured to reflect the six phases of the core skills implementation life cycle shown in Figure 1, and this structure is also reflected in the cross-case analysis that follows.

### Phase 1. Identification of core skills for employability and achieving stakeholder agreement

#### 1.1. Who is involved?

The first step in systematically embedding core skills in TVET and skills systems is to acknowledge their significance and work with key stakeholders to identify, define and prioritize them. At this stage, key stakeholders include: government ministries responsible for education, training and employment; employers and workers' organizations; training institutions; and teachers, trainers and trainees.

In five of the six countries reviewed, acknowledgement and identification of these skills commenced in the 1990s and has been resumed and updated since. Interestingly, in Chile, although the topic is part of the public debate, there has been no structured discussion among stakeholders. As expected,

the terminology used for these skills varies across the six countries, as do the lists of abilities encompassed (see Table 4).

**Table 4. Core work skills: Terminology and stakeholders**

Country	Terminology	Major stakeholders
Australia	Employability skills	Enterprises/employers; workers; industry bodies, licensing and regulatory bodies; federal, state and territory governments; Australian Workforce and Productivity Agency and registered training organizations
Chile	Core competencies	Limited stakeholder involvement. No national agreement on what is meant by core competencies or on how or where they can be acquired
India	Employability skills/soft skills for employability	State and central government; employers' organizations; subject-matter experts; training providers; industry associations
Jamaica	Core skills for employment	Industry lead bodies incorporating representatives of government, employers, workers, professional bodies and education sector
Malawi	Core/ fundamental	Experts from industry, technical colleges, TVET service centres, Malawi National Examinations Board, City & Guilds
Philippines	Basic competencies	Workers, employers, academia, government, Technical Education and Skills Development Authority (TESDA) board, training providers and clients

In each of these country case studies, with the exception of Chile, a range of organizations was involved; the lead organization varied, from employer associations in Australia to the training authority (TESDA) in the Philippines. In India, stakeholder input was focused on curriculum development; there has been very little engagement with key stakeholders on the broader need for, and challenges associated with, introducing core skills into the TVET and skills system.

### *1.2. What skills are included?*

Brewer (2013), having reviewed dozens of lists of “core work skills”, drawn mainly from enterprise/employer surveys, across sectors and around the globe, identified those skills that appeared repeatedly in most or all contexts. Table 5 shows the range of skills identified in the six case studies presented here, grouped into four broad categories.

**Table 5. Core skills for employability**

Broad skill category	Core work skills/abilities
Learning to learn	<ul style="list-style-type: none"> <li>• Willingness to learn</li> <li>• Using learning techniques to acquire and apply new knowledge and skills</li> <li>• Working safely</li> <li>• Pursuing independent learning</li> <li>• Taking responsibility for own learning</li> <li>• Thinking abstractly</li> <li>• Organizing, processing and holding information</li> <li>• Interpreting and communicating information</li> <li>• Conducting systematic enquiry, following through to find answers</li> <li>• Using time effectively and efficiently without sacrificing quality</li> <li>• Selecting the best approach for tasks</li> <li>• Beginning, following through and completing tasks</li> </ul>

	<ul style="list-style-type: none"> <li>• Being adaptable</li> </ul>
Communication	<ul style="list-style-type: none"> <li>• Reading competently</li> <li>• Reading, understanding and using materials, including graphs, charts and displays</li> <li>• Understanding and speaking the language(s) in which the business is conducted</li> <li>• Writing effectively in the language(s) in which the business is conducted</li> <li>• Writing to the needs of an audience</li> <li>• Listening and communicating effectively</li> <li>• Listening to understand and learn</li> <li>• Using numeracy effectively</li> <li>• Articulating own ideas and vision</li> </ul>
Teamwork	<ul style="list-style-type: none"> <li>• Managing oneself at work</li> <li>• Working in teams or groups</li> <li>• Interacting with co-workers</li> <li>• Respecting the thoughts and opinions of others in the group</li> <li>• Working within the culture of the group</li> <li>• Understanding and contributing to the organization's goals</li> <li>• Planning and making decisions with others and supporting the outcomes</li> <li>• Taking accountability for actions</li> <li>• Building partnerships and coordinating a variety of experiences</li> <li>• Working towards group consensus in decision-making</li> <li>• Valuing others' input</li> <li>• Accepting feedback</li> <li>• Resolving conflicts</li> <li>• Coaching, mentoring and giving feedback</li> <li>• Leading effectively</li> <li>• Mobilizing a group for high performance</li> </ul>
Problem-solving	<ul style="list-style-type: none"> <li>• Thinking creatively</li> <li>• Solving problems independently</li> <li>• Testing assumptions</li> <li>• Identifying problems</li> <li>• Taking the context of data and circumstances into account</li> <li>• Identifying and suggesting new ideas to get the job done (initiative)</li> <li>• Collecting, analysing and organizing information (planning and organization)</li> <li>• Planning and managing time, money and other resources to achieve goals</li> </ul>

Source: Brewer, 2013.

The “teamwork” category includes skills relevant to leadership, planning and organizing (self-management). “Learning to learn” also captures elements of planning and organizational abilities identified as core skills in the country studies.<sup>4</sup>

Table 6 shows the particular skills identified as core work skills by each of the six countries studied.

**Table 6. Identification of core works skills by country**

Country	Core skills for employability
Australia	Communication; teamwork; problem-solving; initiative and enterprise skills; planning and organization; self-management; learning; technology

<sup>4</sup> “Learning to learn” itself was not a term used in most core skills taxonomies. Brewer used it to capture a range of related core skills/abilities.

Chile	Oral and written communication; reading and using various types of texts; performing tasks neatly, meeting deadlines and quality standards; seeking relevant alternatives and solutions when problems arise; working effectively in a team
India	English language; communication; occupational safety and health; entrepreneurship; presentation; self-management; ability to plan, organize and coordinate; leadership; ability to cope with stress; negotiation
Jamaica	Collecting, analysing and organizing information; communicating ideas and information; planning and organizing activities; working with others in a team; using mathematical ideas and techniques; solving problems; using technology
Malawi	Communication; entrepreneurship; numeracy; sciences; occupational safety and health
Philippines	Communication; teamwork; problem-solving; planning; health, safety and sustainable development

## Phase 2. Mapping, revision and/or development of competency standards, curriculum and resources

In **Australia**, the TVET and skills system is a comparatively tightly regulated framework of competency-based standards and qualifications that define outcomes for non-professional occupations. The basic elements of this system are “training packages”, which consist of competency standards grouped into qualifications with guidelines for assessment. These packages address employability skills through two main approaches: by including stand-alone units of competency on generic skills (e.g. communication skills, use of ICTs); and/or by implicitly or explicitly integrating these skills into competency elements or performance criteria within other units of competency relevant to that occupation (e.g. handling customer complaints). In both cases, the template for each unit of competency includes a section on “foundation skills” wherein generic skills relevant to that unit are identified. However, little guidance is given to developers of standards and training packages on how this section is to be completed.

Somewhat confusingly, the nationally endorsed set of “employability skills” has recently been supplemented by two competing “generic skills” frameworks (the Core Skills for Work Developmental Framework (CSfW) and the Australian Core Skills Framework (ACSF)), which also provide a potential reference for developers of training packages. Consequently, despite the initial strong single foundation for generic skills, first through the key competencies and then subsequently through employability skills, the national approach to inclusion of core skills in competency standards and qualifications in Australia has recently been diluted and rendered less clear.

In **Chile**, the secondary level of TVET includes national core skills profiles. While outcome statements for graduate profiles and course structures include core skills, these are not translated into classroom practice as teachers and trainers give priority to the technical skill outcomes. In recognition of this issue, steps are under way to ensure core skills are incorporated more fully in programmes and identified among the criteria for approval by the National Education Board. Nationally standardized occupational profiles exist for the purpose of workplace skill certification, although it is not clear how the skills specified in secondary-level TVET align with those occupational profiles. In tertiary-level TVET, however, owing to the autonomy of educational and training institutions, there are no nationally consistent standards or qualifications that address core skills. In Chile there is no national agreement to integrate core skills into the curriculum.

In **India**, there is no common framework of qualifications across different educational sectors, and competency-based training is only in its infancy in the skills sector. With the gradual implementation of the National Skills Qualification Framework (NSQF) since 2013, however, it is expected that more nationally consistent approaches to qualifications and competency-based vocational training will develop. While the system of employer-developed National Occupational Standards (NOS) and Qualification Packs includes various competencies that could be considered generic skills, in the absence of an agreed national set of core skills efforts remain ad hoc and piecemeal. Prior to development of the NSQF, NOS and Qualification Packs, the Ministry of Labour did develop competency profiles for core skills under its Modular Employability Skills framework, and these continue to be included in programmes delivered through the successful Skills Development Initiative short course training scheme. However, given the plethora of government agencies involved in skills development in India, these standards have little relevance outside the Skills Development Initiative scheme itself.

In **Jamaica**, occupational competency standards form the basis of occupational qualifications, and guidance on the inclusion of “critical employability skills” is available through resources developed by the National Council for Technical and Vocational Education and Training (NCTVET). These set out specific performance criteria for employability skills at three different levels of complexity, although these levels do not align with the levels of the national vocational qualifications (NVQs) awarded in Jamaica. As in other countries, in some occupations specific employability skills are identified as separate competency standards, while in others they are integrated into overall competencies. Plans exist to develop an online training management system that will include a repository of curriculum and assessment tools, including those needed for training in core skills. It is hoped that through this initiative greater attention will be drawn to the development of curriculum materials focusing on core skills development.

In **Malawi**, a mapping of the existing competencies, curriculum, delivery and assessment resources and reporting practices was undertaken. This led to the development of new skill standards for all occupations, including fundamental/core skills. However, the exercise had some shortcomings. For example, a number of respondents indicated that in certain cases industry and training institutions delegated the task of participating to members of staff with limited experience, which resulted in misrepresentation of their interests and poor matching of core skills with the level of qualifications. It was also observed that the five core/fundamental skills identified in Malawi are given various names in the curriculum, which makes it difficult for teachers and trainers to deliver teaching in a consistent manner. Inadequate teaching and learning materials in some instances also affect the implementation by training institutions.

In the **Philippines**, the basic competencies are a required component of all TVET programmes covered by TESDA training regulations. The five core skill areas have 20 individual units of competency that are positioned at different levels of the Philippine qualifications framework. New curricula and learning materials have been developed for these competencies for integration in both on- and off-the-job curricula. However, given that many programmes offered by private training organizations do not comply with TESDA training regulations, the integration of the basic competencies in the Philippine system can only be considered partial. While a stand-alone curriculum exists for the basic competencies, their development is also reinforced through other aspects of the curriculum. Some institutions claim that they go beyond the minimum requirements of the training regulations and have added new units of competency and curriculum materials to develop a broader set of core skills including “personality development” and “values education”.

Table 7 summarizes the different approaches to integrating core skills in competency standards and curricula outlined above.

**Table 7. Core skills integration in standards and curriculum**

Country	Specific core skills units of competency	Core skills integrated in technical units of competency	Explicit core skills curriculum outcome statements
Australia	✓	✓	✓ (schools only)
Chile <sup>a</sup>			✓
India <sup>a</sup>	✓ (MES/CTS schemes only) <sup>b</sup>	✓ (MES/CTS schemes only) <sup>b</sup>	✓ (schools only)
Jamaica	✓	✓	✓
Malawi	✓		
Philippines	✓	✓	✓

<sup>a</sup> No nationally agreed core skills framework exists in the TVET sector.

<sup>b</sup> MES: Modular Employable Scheme; CTS: Craftsmen Training Scheme.

The absence of a nationally agreed core skills framework for the TVET sector, as is the case in India and Chile, clearly limits the extent and nature of core skills integration. Without a nationally agreed framework, integration is inevitably piecemeal and fragmented. The analysis shows that where an agreed set of core skills is in place, efforts have been made to implement them through skill standards and curriculum systems, although the extent to which these influence delivery, assessment and ultimately learning remains an open question.

While different standards-based curriculum and qualification systems exist in each of the countries, with the exception of Chile it is common practice to address the integration of core skills both through the development of stand-alone units of competency (for at least some core skills) and through their integration in the elements and/or performance criteria for specific occupational units. The existence of curriculum outcome statements depends to some extent on whether a national curriculum exists or whether curriculum development is the responsibility of individual training organizations. There are also examples of core skills being addressed through level descriptors in qualification frameworks (as in Australia).

### **Phase 3. Mapping, revision and/or development of delivery, assessment and reporting practices**

In **Australia**, no instances of generic skills implementation in training packages or course curricula have included a requirement to explicitly address the assessment of generic skills when assessing the unit of competency. This is because it has been assumed within policy circles that as generic skills are in most cases implicitly incorporated in units of competency they will be therefore be implicitly

addressed in assessment, and thus achievement in generic skills, as in any other element, can be inferred from successful completion of the unit. Although there have been shifts in defining generic skills, there has been little attention to addressing them in the delivery, assessment and reporting of vocational training. The situation is exacerbated by the fact that Australian registered training organizations (RTOs) have responsibility for development of assessment tools and assessment practice, so that national reporting of generic skills achievement occurs only for those discrete units of competency addressing core skills in training packages.

In **Chile**, no standardized assessment or teaching support resources have been developed in any field for the development of core skills. Core skills development has been addressed mainly outside the main curriculum, during spare time or as extra-curricular activity; reporting on core skills achievement through these means has not been addressed.

In TVET programmes targeting Chile's long-term unemployed core competencies are integrated into training and/or modules dealing with literacy and numeracy. While these modules represent up to 10 per cent of course duration, they are not supported by any standardized delivery and assessment materials. In 2009 the Vocational Education and Training Commission proposed implementation of a national assessment and reporting system; however, to date, there is no national agreement to integrate core skills into the curriculum or to monitor and report on their achievement. In relation to ICT skills, on the other hand, assessments were included in the National Assessment System for Education Results (SIMCE) for the first time in 2012.

In **India**, stand-alone TVET curriculum modules seeking to impart employability skills under the Craftsmen Training Scheme (CTS) and Modular Employable Scheme (MES) framework exist and are supported by discrete instructional materials and separate assessment tools. In the skills sector more broadly, however, as there is no agreed common framework for core skills within the emerging competency-based qualifications system, broadly applicable curriculum and assessment materials are not available. In secondary schools, stand-alone assessment of core skills exists in the form of the Problem Solving Assessment exam conducted by the Central Board of Secondary Education to improve the generic and higher-order thinking skills of learners and raise scores in the core school subjects. It does not, however, include other core skills such as teamwork and oral communication which are deemed to be addressed through other parts of the syllabus. In the case of general education, stakeholders acknowledge that the use of portfolios in assessment is becoming more common because it can be more readily related to the learning context than traditional assessments. However, as this form of assessment is largely dependent on the administration of individual schools, although supportive of core skills development it is not widely used.

In **Jamaica**, assessment guidelines for the National Qualifications Framework provide specific guidance on the assessment of employability skills, but no stand-alone assessment tools have been developed. Achievement of employability skills is considered to be measured through the use of national assessment tools developed for each occupation by the NCTVET. There is no central monitoring or reporting of core skills achievement.

In **Malawi**, while at the level of curricula TVET is oriented towards the world of work and emphasis is given to the acquisition of core/fundamental skills, the sector places more emphasis on the passing of examinations and progression to the next academic level than on ensuring students apply the skills required by specific occupations. While new teaching and learning materials have been developed to support delivery of the core/fundamental skills (including modules, training guides, schemes of work and assessment packages), as there is no common framework for the curriculum in Malawi there have been substantial differences in interpretation among training institutions when delivering these skills.

Consequently, delivery takes place through a hybrid model including both stand-alone and integrated approaches. Achievement in core/fundamental skills is reported separately from other skills as they form part of the credits learners have to attain to obtain a certificate at all levels, representing 25 per cent of total credits. However, because of inadequate professional development of teachers and instructors, there are delays in reporting of achievement and also concerns about the rigour of institutional assessment.

In the **Philippines**, the training regulations specify that all the basic competencies at each particular level must be completed before the trainee can proceed to the specialized competencies. Various learning activities and methodologies are used to achieve the learning outcomes in the different modules, and this learning is reinforced through the inclusion of the basic competencies in other, technical areas. However, while sample curricula for each training regulation are made available through the TESDA website, each school or institution, whether public or private, is free to develop its own curriculum. The basic competencies are not separately assessed during the overall national assessment process, as their achievement is inferred from performance in the technical competencies. TVET institutions themselves, however, are required by TESDA to assess the basic competencies separately using assessment tools developed by TESDA or the institutions themselves. Records of these assessments are maintained by the institution rather than informing separate national reporting of core skills achievement.

It is noteworthy that none of the countries reviewed has mapped the presence of core skills in delivery and assessment practices. Table 8 summarizes the different approaches to core skills delivery, assessment and reporting identified in the six target countries. It highlights the lack in all of the countries reviewed of a national system for the assessment and reporting of core skills achievement.

**Table 8. Core skills delivery, assessment and reporting practices**

	<b>Delivery and assessment tools</b>	<b>National assessments</b>	<b>National reporting</b>	<b>Institutional assessment</b>	<b>Institutional reporting</b>
Australia				✓ (for stand-alone core skills units of competency only)	✓(for stand-alone core skills units of competency only)
Chile		✓ (for ICT skills only)			
India	✓ (MES and CTS schemes only)	✓ (problem-solving in schools sector only)	✓ (problem-solving in schools sector only)	✓ (MES and CTS schemes only) <sup>a</sup>	✓ (MES and CTS schemes only) <sup>a</sup>
Jamaica	✓				
Malawi	✓			✓	✓
Philippines	✓			✓	✓



<sup>a</sup> MES: Modular Employable Scheme; CTS: Craftsmen Training Scheme.

While a number of countries have taken steps to provide core skills teaching and learning materials, standardized assessment and reporting of core skills achievement is limited. Given the known links between delivery, assessment and reporting, it could be argued that achievement of core skills in education and training institutions in these six countries is inconsistent and inadequate. This highlights the key role played by assessment and reporting, especially through standardized national systems, in determining the extent to which core skills are delivered through training.

#### Phase 4. Professional development of teachers, trainers and institution managers

Some of our sample countries have programmes in place for the professional development of teachers and trainers. These range from ad hoc workshops to formal certification at master’s level. Jamaica and the Philippines run programmes for managers of training organizations ranging from annual retreats to formal certification. A summary of current initiatives is set out in Table 9.

**Table 9. Professional development: Country-level initiatives**

Country	Programmes
Australia	No specific training on core skills but recent introduction of a training package and course curriculum
Chile	Weak/inadequate; new standards in process of implementation
India	Teacher assessment and certification in specific programmes cover core skills; courses offered specifically on core skills
Jamaica	Five levels of certification: TVET instructor diploma; postgraduate diploma in education and training; bachelor of science degree in career development; certificate in assessor training; certificate in training trainers.  Integrated into assessment of trainers; on-going annual retreats for managers
Malawi	No formal training of TVET teachers; ad hoc pedagogical training through workshops
Philippines	Programmes offered at four levels: master’s degree in innovative technology education; leadership enhancement and development programme; work attitude and values enhancement programme; team leaders’ session on basic leadership skills and coaching

In **Australia**, the major qualification required to train and assess in TVET programmes is the Certificate IV in Training and Assessment. This qualification includes knowledge and skills related to competency-based assessment, delivery and facilitation, and learning and design. However, there is no explicit requirement within that qualification or within the specific units of competency related to training and assessment that specifically relates to training and assessing generic skills. The inclusion of assessment of generic skills in training programmes for trainers, therefore, is the concern of the individual training provider or trainer.

Given the very recent introduction into training packages and course curricula of the CSfW and the ACSF, there has been minimal professional development or dissemination of how to incorporate these

core skills into training and assessment strategies and materials, or indeed any promotion to employers.

In **Chile**, initial and continuing education for teachers in this area is inadequate. Since 2007 there have been continuing education opportunities for secondary school vocational education teachers, intended to equip them with teaching and technical competencies within their specialist areas. However, in the absence of associated monitoring and assessment mechanisms it is impossible to determine whether and to what extent these efforts have had a positive impact on teaching and learning processes.

One of the changes currently under way is the implementation of guiding standards for a teaching degree, which identify the minimum knowledge required by each teacher in respect of both their own subject and core competencies, as well as the professional dispositions and attitudes required to perform effectively. However, no specific standards have been designed for vocational education and training.

In **India**, a number of large private training providers seek to ensure that trainers in “employability skills” such as “good communication” and “IT skills” demonstrate their capabilities in the subject areas. It is felt that they will be better placed to transfer these skills to learners through a mix of theoretical and practical lessons. Teacher assessment and certification are based on a skill development portfolio, classroom practice and evidence of student learning. A notable example of exclusive core skills training provided to teachers or trainers is that provided by Kanumuru Education and Knowledge Ltd (KEKL), which runs a programme covering teacher assessment for core skills. Teachers on this programme are trained in core skills and then periodically assessed. The National Institutes of Technical Teachers’ Training and Research (NITTTRs) regularly conduct short-term training courses for teachers which include a focus on core skills.

In **Jamaica**, the Vocational Training Development Institute (VTDI) offers TVET-related programmes at five levels (see Table 9).

Critical employability skills are integral to all instructor training programmes. The use of a facilitation/lesson plan template allows the trainee instructors to identify the skill(s) to be incorporated in particular training programmes. This template is available online to TVET instructors and trainee instructors, as are training videos. Career development officers are assigned to all training centres to assist in delivering specific training in employability skills.

Annual retreats for management personnel allow scope for professional input into the review of these employability skills. At these events the importance of the various skills is considered, along with new ways of ensuring their delivery as part of the TVET curriculum.

**Malawi** does not have a college that specifically trains technical teachers. Most join the colleges where they teach with experience from industry. In view of this, they are offered pedagogical training on an ad hoc basis, mostly through workshops, which is unlikely to be sufficient to build the capability to develop core/fundamental skills in the classroom. However, tailor-made in-service training sessions are periodically organized at which teachers are taught how to deliver core skills.

In the **Philippines**, trainers in public institutions are guided on how to introduce core skills into classroom/institution training modules and there is evidence that private institutions provide training programmes for teachers and trainers on how to deliver and assess core skills. Capacity-building programmes for institution managers that address core skills to some degree are also available (for details see Table 9).

## Phase 5. Awareness-raising/social marketing of core skills among employers, parents, students

In **Australia**, while there has been extensive research on the delivery, assessment and reporting of training in generic skills (including through the country's largest ever education trial at the time, from 1993 to 1998), in the absence of standardized national assessment and reporting, social marketing and promotion has been limited to websites and communication material presenting the outputs of the various pilots and research initiatives. While an e-portfolio tool and other web-based resource platforms were developed for the key competencies and employability skills, these have lapsed in recent years. However, this material, now buried on various websites, has recently been augmented by material associated with the new CSfW which specifically targets teachers and trainers. Nevertheless, in the absence of a single agreed generic skills framework at the national level, the onus is on the developers of training packages, training organizations and educators themselves to promote generic skills attainment.

In **Chile**, while some influential reports (e.g. CNIC, 2013) have highlighted the need for increased attention to core skills development, no standardized national social marketing efforts have been made to this end. However, in marketing materials for key TVET programme initiatives (e.g. ENLACES, PREPARADO and IMAGINA), core skills achievement is highlighted and specified as an outcome of programme completion.

In **India**, the creation of any coherent social marketing strategy has been prevented by the lack of an agreed core skills framework. While employability skills are included under the CTS and MES programmes, no social marketing efforts have substantially focused on these skills. However, stakeholders have emphasized the need for a sustained national campaign to raise awareness of core skills, arguing that such a campaign would help organizations to appreciate the benefits of core skills training and could offer advice and guidance for its effective implementation. The only evidence of core skills related social marketing can be found in the private sector where, for example, the Wheebox Employability Skills Test (WEST) initiative has involved face-to-face events in partner colleges explaining the importance of core skills and urging students to test their skills using the WEST software.

In **Jamaica**, the HEART (Human Employment and Resource Training) Trust Career Development and Employment Facilitation Service uses a web-based tool for trainees that promotes development and attainment of employability skills as an important component of effective jobsearch skills. There are as yet no national social marketing or awareness-raising efforts directed at parents or employers; however, there are plans to extend the HEART programme into a National Career Programme which will give greater emphasis to the promotion and development of employability skills in Jamaica.

In **Malawi**, while a strategy was developed to guide the implementation of core/fundamental skills, insufficient social marketing and awareness-raising was undertaken with either employers or the wider community.

In the **Philippines**, while the basic competencies have been introduced through TESDA training regulations, it remains to be seen to what extent these skills have been internalized by TVET students and graduates. It was noted that awareness-raising on the basic competencies has largely been carried out through the "blue-collar desks" and career guidance programmes run by TESDA which promote middle-level or TVET qualifications as a viable route to careers for high-school graduates.

In the absence of a nationally agreed set of core skills backed by standardized national assessment and reporting in any of the countries reviewed, it is perhaps not surprising that social marketing and promotion efforts have been ad hoc and piecemeal, led primarily by individual training organizations.

## Phase 6. Monitoring and/or impact assessment of the implementation of core skills for employability

Progress has been made in all of the countries reviewed in recognizing the value of core skills for the world of work, building them into curricula and ensuring some measure of professional development for teachers and trainers. On the other hand, the monitoring and evaluation of programmes in place is weak or non-existent (for a summary, see Table 10).

**Table 10. Monitoring and evaluation: Country-level initiatives**

Country	M&E system	Comments
Australia	No	Pilots in the 1990s; no political will
Chile	No	Currently trialling national assessment for ICT skills only
India	No	Some private initiatives undertaken recently
Jamaica	No	
Malawi	Yes	Tools developed; training workshops held; poor data management
Philippines	No	Several initiatives but nothing concrete implemented

In **Australia**, the review of units of competency and course curricula is embedded in the endorsement and continuous improvement processes approved by the National Skills Standards Council (NSSC). However, while the introduction of successive new frameworks has on each occasion generated research in the area, the impetus for the introduction and monitoring of these frameworks has been influenced more by political imperatives than by a desire to monitor and evaluate alternative approaches to generic skills development. Consequently, beyond the extensive pilot evaluation in the 1990s, there has been very limited monitoring and evaluation of the effectiveness of generic skills initiatives at government policy level.

In **Chile**, there is no national agreement to integrate core competencies into the curriculum. To date, no monitoring and evaluation system has been implemented for initiatives at either secondary or tertiary level. One step towards this was the trial incorporation of the ICT test into the SIMCE assessment system. In the first trial, half of all secondary students did not achieve a minimum level pass. In the realm of informal education, training courses carried out in programmes run by the National Employment and Training Service (SENCE) do not include evaluation components but only provide assistance in gaining access to the diploma.

In **India**, the absence of any formal form of reporting on core skills delivery or testing has resulted in the absence of a system of monitoring or evaluation. Though certain private initiatives have been initiated, they are too recent to effectively monitor and evaluate results. Stakeholders feel that an effort should be made by the Directorate General of Training to incorporate a stand-alone scheme of

core skills delivery and testing using internationally approved methods. This feature, if embedded as a separate test within a learner's overall assessment, will encourage students as well as teachers and training providers to put more emphasis on raising the employability of students across a range of different occupations.

In **Jamaica**, although there have been improvements in the identification and inclusion of core skills in the TVET curriculum and occupational standards, there is no evidence from the quality of graduates that training in these skills is consistently or increasingly effective.

In **Malawi**, monitoring and evaluation tools for all occupations, including core/fundamental skills, have been developed. TVET institution managers were involved in the training workshops on delivery, supervision, monitoring and evaluation that led to the development of these tools. However, the question of monitoring and evaluation specific to core/fundamental skills, especially in industry, has not been adequately addressed. To date, there has been no monitoring and evaluation of the national implementation strategy. The challenges of monitoring and evaluation are compounded by poor data management systems in public colleges and poor monitoring of private TVET providers.

The **Philippine** TVET system is facing increasing pressure to be responsive and competitive in the global market. It is having to adjust its programmes and standards to meet the diverse and constantly changing needs of the global economy. In its desire to make 20 basic competencies more relevant and responsive to the demands of the major industrial sectors, TESDA commissioned the Southeast Asian Ministers of Education Organization Regional Centre for Educational Innovation and Technology to deepen its existing basic TVET competencies. The recommendation on basic competencies has not yet been published by the TESDA board, and thus remains to be implemented.

## 5. Conclusion

This paper has attempted to analyse the extent to which core skills for employability have been implemented in six diverse national TVET and skills systems. The country case studies provide insights into the different approaches taken and the various challenges encountered during the implementation process.

It is clear that in none of the six countries has a comprehensive approach to core skills integration been achieved. While Australia undertook the most comprehensive development process and has various mechanisms in place by which core skills are integrated into qualifications and competency standards, the lack of standardized national assessment and reporting has led to a piecemeal and ad hoc approach. Such fragmentation is also a feature of the other countries reviewed, perhaps with the exception of the Philippines, where a form of national reporting through institutional assessment means that at least those institutions delivering programmes based on TESDA training regulations are required to assess and report on core skills achievement.

It is apparent from the research that the absence of national assessment and reporting significantly limits the extent to which core skills are meaningfully addressed in the delivery of training. The absence of a coherent approach not only to defining core skills but to ensuring their inclusion in qualifications, standards and curricula limits the extent to which they are addressed through delivery, assessment and reporting.

While developing countries face numerous challenges in seeking to improve the quality and relevance of their TVET and skills systems, it should be recognized that an explicit focus on core skills in delivery and assessment practices provides the opportunity for broader improvements in the quality of

teaching and learning that take place in institutions. The same teaching and learning strategies that are required to develop communication, teamwork and problem-solving skills will also improve the quality of technical skills developed. The clear implication is that an explicit focus on the delivery and assessment of core skills should be given priority in pre-service and in-service teacher and trainer development programmes. While the case studies identified some initiatives that are already taking place, there are no mandatory requirements for teachers and trainers to undertake professional development in the delivery of core skills.

These six case studies have demonstrated that in both developed and developing countries, much remains to be done to ensure that TVET and skills systems adequately develop the core skills that can so profoundly enhance the employability of learners and jobseekers.

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## **Annex - Country case studies**



# Australia

## Core skills

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### 1.1 Introduction

There are approximately 11,648,000 employed people in Australia, full-time and part-time. Over the past five years, employment across all industries has increased by 6.7 per cent. The median age for workers in Australia is 40 years and median earnings are around AUD 1153 per week (before tax) for full-time employees<sup>5</sup>.

The working age population (15–64 years of age) is 15,618,200. The employment rate (15–64 years of age) is 71.9 per cent; the participation rate (15+ years of age) is 64.9 per cent; and, the unemployment rate (15+ years of age) is 5.6 per cent.<sup>6</sup> Of the 19 broad industry sectors, the three highest employment sectors are health care and social assistance (1,387,400 individuals), retail trade (1,230,800 individuals) and construction (1,026,500 individuals).

Since the 1990s, the Australian vocational education and training (VET) system has moved from a system largely run by the eight states and territories to one in which many features are determined at the national level. The Australian VET system is competency-based and industry-led with a commitment to access and equity (Skills Australia 2010; Hoeckel et al., 2008).

*Learning for Jobs: OECD Reviews of Vocational Education and Training – Australia* (2008), the OECD report, noted the adoption of several market-based approaches in the Australian system:

- i. Entry of several thousand private, enterprise-based and not-for-profit providers able to provide VET services<sup>7</sup>. This has enabled employers, students and apprentices to select the provider and type of delivery which may or may not be publicly funded.
- ii. Under national quality assurance arrangements, qualifications issued by a registered training provider are recognized across all states and territories in other registered training organizations<sup>8</sup>.
- iii. High level of flexibility in terms of: ages of participation; programmes ranging from a single unit of competency to complete qualifications at the Advanced Diploma level<sup>9</sup>; and, delivery methodologies that range from formal classrooms, work-based learning, self-paced or online learning or a blend of methodologies.

VET provision can be in public training providers<sup>10</sup>, enterprise-based and not-for-profit providers, schools, within universities or other higher education providers, adult or community education, and various cultural, religious or other bodies.

The OECD report (ibid, 2008) noted that Australia ‘has a well-developed apprenticeship system that includes both traditional apprenticeships in traditional trades and “traineeships” in other often more service-oriented occupations’ (p. 10). Both traineeships and apprenticeships include a legal contract between the employer and the student and a combination of school-based and workplace training.

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<sup>5</sup> Department of Employment, August 2013 data, <http://lmip.gov.au/default.aspx?LMIP/IndustryInformation>

<sup>6</sup> Department of Employment, August 2013 data, accessed November 2013, <http://lmip.gov.au/default.aspx?LMIP/LFR>

<sup>7</sup> Currently there is estimated to be 4,700+ registered training providers in Australia.

<sup>8</sup> This is often referred to as ‘mutual recognition’ or ‘national recognition’.

<sup>9</sup> Note that traditionally the levels of the AQF that apply to VET are levels 1–6. However, there are graduate certificates and graduate diplomas or bachelor degrees that may be VET focussed and competency-based.

<sup>10</sup> Referred to as TAFE (Training and Further Education) Institutes.

However, apprenticeships are typically three to four years in duration and traineeships only one to two years. They also differ in the occupational outcomes.

The national VET system is underpinned by three overarching quality assurance strategies related to vocational education and training in Australia:

- i. Australian Qualifications Framework (AQF): This framework specifies the outcomes of all nationally recognized qualification types achieved in post-compulsory education.
- ii. Training Packages: These are a set of nationally endorsed standards and qualifications used to recognize and assess the skills and knowledge people need to perform effectively in the workplace. The OECD report of 2008 estimated that VET competencies and qualifications covered around 80 per cent of occupations in Australia at that stage.
- iii. Standards for National VET Regulator (NVR) Registered Training Organizations<sup>11</sup>: These standards are the minimum quality standards for all approved training providers, termed ‘registered training organizations’.

A key objective of the VET system is to ensure Australia has the skills required for current and future jobs. In the VET system industry is actively involved in VET policy making and in the development of standards as well as in delivery and assessment. In place are 11 Industry Skills Councils (ISCs) which provide advice to Australian and state and territory governments on the training that is required by industry and the workforce development and skills need of industry sectors – a key responsibility is the development and maintenance of units of competency<sup>12</sup> in training packages.

A training package is a set of nationally endorsed standards and qualifications for recognizing and assessing people's skills in a specific industry, industry sector or enterprise. Training packages include:

- i. A set competency standards that describe job tasks in an industry sector or subsector.
- ii. Qualification completion rules<sup>13</sup> that outline the competencies required for the completion of a qualification and describe defined job roles.
- iii. Assessment requirements.

Training packages are endorsed by the NSSC, which brings together the major players in the VET sector – industry, employee representatives, governments, equity groups and practitioners – to oversee and support the quality of VET in Australia. The NSSC oversees quality assurance and ensures national consistency in the application of the national provider quality standards and has specific decision-making powers in relation to the endorsement of training packages.

## 1.2 Overview and conceptualization of core skills in VET

Generic skills in the Australian VET system have gone through a number of iterations since the reforms of the VET sector in the 1990s. Although there have been different attempts to define and implement core skills in the VET sector there have been similar processes used, mostly involving establishing committees or commissioned reviews and undertaking extensive consultation.

Currently there is no operational definition of generic or core skills.<sup>14</sup> Working definitions for generic or core skills have depended on the framework proposed or developed at different points in the evolution of the VET system. For industry, VET practitioners and learners this has led to confusion

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<sup>11</sup> Note that two states (Western Australia and Victoria) still have remit over registered training organizations delivery training within their states and do not include distance delivery or delivery to international students. Currently the quality assurance standards applied are the Australian Quality Training Framework (from which the NVR Standards for registered training organizations are derived).

<sup>12</sup> Considered to be occupational standards.

<sup>13</sup> Known as ‘packaging rules’.

<sup>14</sup> In definitional terms the terms core and generic skills are used interchangeably.

associated with the various terms (for example, key competencies, employability skills, generic skills, core skills).

In 1992 the Mayer Committee (Mayer, 1992) identified seven key competency strands which were essential to preparing young people for employment (see Table 1.1). These key competencies were considered ‘essential for effective participation work’...and...’for effective participation in further education and in adult life more generally’ (ibid, p. ix). The Mayer key competencies included three performance levels and were documented in tabular form in each unit of competency within training packages or course curriculum. In 1999, Moy reviewed the research on generic skills that had been published in the previous five years, focussing on that which had been conducted in Australia post-Mayer. She reported that ‘researchers had found little evidence that Mayer’s three performance levels were being used; that in the field, the preferred mode of assessment was to integrate key competencies with vocational ones; that VET practitioners and industry representatives favoured the use of descriptive reporting formats’ (Moy, 1999; Clayton, Blom, Meyers & Bateman, 2002, p. 16).

In 2002, the report, *Employability skills for the future* (Australian Chamber of Commerce and Industry & Business Council of Australia, 2002) noted that employers were seeking workers with generic and transferable skills and undertook research to obtain the views of industry to assist in the development of a comprehensive framework of employability skills. This report defined employability skills as ‘skills required not only to gain employment, but also to progress within an enterprise so as to achieve one’s potential and contribute successfully to enterprise strategic directions’ (ibid, p. 3). The *Employability Skills Framework* identified eight key generic employability skills (see Table 1.1) that employers argued individuals should have along with the job-specific or relevant technical skills; it also identified a number of personal attributes that employers valued.<sup>15</sup>

In 2006, the *Employability Skills Framework* replaced the Mayer Key Competencies in new training packages. The employability skills in this instance were not explicitly stated in units of competency, but were listed as outcome statements at a qualification level<sup>16</sup> (and therefore were more like graduate attributes) rather than key skills documented within units of competency as was previously done with the Mayer Key Competencies. This development was accompanied by a redrafting of units of competency to include explicit statements on employability skills.

In most recent times there has been the development of two national skills frameworks which can now be referenced in units of competency within training package and course curriculum:

- i. Core Skills for Work Developmental Framework
- ii. Australian Core Skills Framework.

The CSfW was released by the Australian Government in 2013 and describes a set of non-technical skills, knowledge and understandings that underpin successful participation in work. Participation in work could be as an employee, as someone who is self-employed, or as a volunteer. This set of non-technical skills (generic or employability skills), contribute to work performance in combination with technical or discipline specific skills and core language, literacy and numeracy skills. The framework describes performance in ten skill areas, grouped under three skill clusters:

- i. Navigate the world of work (manage career and work life, work with roles, rights and protocols).
- ii. Interact with others (communicate for work, connect and work with others, recognize and utilize diverse perspectives).
- iii. Get the work done (plan and organize, make decisions, identify and solve problems).

The critical difference with the CSfW is that while the *Employability Skills Framework* was focused specifically on employees, this framework is broader in its application as it also applies to self-

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<sup>15</sup> These personal attributes were not included in the finalised *Employability Skills Framework* utilized in training packages.

<sup>16</sup> Qualification level statement is called an Employability Skills Summary.

employment, volunteer work and training. The CSfW is specifically targeted at educators, trainers, practitioners and those developing training packages, courseware and curriculum to support the development of these skills in an educational setting (Australian Government, 2013). The CSfW is differentiated by two particular characteristics, which are that:

- i. The particular skills and stages of performance required by individuals will vary according to the context in which they are operating.
- ii. It encompasses five stages of performance – Novice, Advanced Beginner, Capable, Proficient and Expert (based on Dreyfus & Dreyfus, 1985).

Also in place in the further education sector is the ACSF (Commonwealth of Australia, 2012) which has only recently been introduced. The ACSF addresses skills that are considered essential for people to participate in society. The ACSF is primarily a tool for language, literacy and numeracy specialist practitioners in the further education system. It describes five levels of performance (based on Dreyfus & Dreyfus, 1985) in the five core skills of learning, reading, writing, oral communication, and numeracy (Australian Government, 2008). The table below compares the generic skills described in each of the frameworks. Framework analysis indicates that the most valued generic skill is that of communication with teamwork, problem solving, planning and organization skills, as well as technology skills being also highly valued.

**Table 1.1: Generic skills described in various frameworks**

<b>Mayer key competencies</b>	<b>Employability skills</b>	<b>CSfW</b>	<b>ACSF</b>
3 performance levels		5 performance levels	5 performance levels
Communicating ideas and information	Communication skills	Communicate for work	Reading, writing, oral communication
Using mathematical ideas and techniques			Numeracy
Working with others and in teams	Teamwork skills	Connect and work with others Recognize and utilise diverse perspectives	
Solving problems	Problem solving skills Initiative and enterprise skills	Identify and solve problems Create and innovate	
Planning and organizing activities	Planning and organizing skills	Plan and organize Make decisions	
Collecting, analysing and organizing information	Self-management skills Learning skills	Manage career and work life Work with roles, rights and protocols	Learning
Using technology	Technology skills	Work in a digital world	

In May 2013, a training package was developed for foundation skills. The Foundation Skills Training Package differs from industry specific training packages as it has been designed to work in combination with them to support the achievement of vocational pathways. The Foundation Skills Training Package describes the skills and knowledge that underpin vocational performance. The ISC responsible for this training package acknowledges that generic skills are not being well implemented by noting ‘while these skills and knowledge are already described or implied within vocational competencies in other training packages, many learners fail to develop the required foundation skills through their vocational training programmes’ (Innovation and Business Skills Australia, 2013). The Foundation Skills Training Package enables registered training organizations to select and deliver units of competency and qualifications to assist in building learners’ foundation skills required to achieve vocational competence.<sup>17</sup>

Running parallel to these framework developments has been the inclusion of generic skills as discrete units of competency in all iterations of industry sector training packages and course curriculum. These units of competency are those not specifically related to a vocational skill, but are considered generic skills required for employment in the relevant field. These units of competency could relate to such skills as communication, self-management, ICT and writing. However, there is no explicit set of generic units of competency, nor are these units of competency identified or labelled as ‘generic’.

### 1.3 Stakeholder involvement

As previously mentioned, training packages are a key feature of Australia's national VET system. Training packages are used as the basis for almost all of the programmes delivered in the VET system<sup>18</sup>. A critical component of the training package endorsement process has been the involvement and confirmation of industry stakeholders. Currently the process for endorsement indicates that stakeholders include enterprises, employer and employee representatives, licensing and regulatory bodies, state and territory governments, the Commonwealth, the Australian Workforce and Productivity Agency and registered training organizations. The process also includes confirmation by the ISC in conjunction with a representative sample of industry stakeholders that the draft training package reflects accepted industry or enterprise practice.

In terms of the generic skills frameworks, all were developed after extensive research and consultation with stakeholders. For the development of the Employability Skills Framework the focus of the research was to identify a set of employability skills that employers sought in their employees. This included researching a sample of small, medium-, and large-sized enterprises, followed by a validation activity with 150 enterprises and employer groups (Australian Government, 2013). For the CSfW (ibid) the research and development process included input from more than 800 people, including employers, unions and industry groups and a broad cross-section of organizations and sectors. However, not all frameworks have been endorsed to be used within training packages. The Mayer Key Competencies and the *Employability Skills Framework* were endorsed by the NSSC (or its predecessor). On the other hand the CSfW and the ACSF do not fall under the remit of the NSSC. The responsibility for reviewing and ensuring currency of the *Employability Skills Framework* and the CSfW is unclear.

### 1.4 Curriculum and training

The generic skills required by different industry sectors were initially identified through the training package development process. The process for development included research prior to drafting units of competency; including such activities as surveys, interviews, critical incident technique, group processes (such as DACUM (developing-a-curriculum)), nominal group technique, functional analysis and observation. Currently, any identification of generic skills is dependent on the findings of the

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<sup>17</sup> The Training Package includes three qualifications; two Certificate I and one Certificate II. The completion rules for qualification allow importing units of competency as electives from other training packages.

<sup>18</sup> Course curriculum outside the framework of a training package is developed only if a gap is identified in the training package.

continuous review and improvement processes of the ‘Standards for Training Packages’<sup>19</sup> and related policies.

In the VET sector there are two main options for including generic skills into programmes. Generic skills can be implicitly or explicitly noted within a unit of competency while other generic skills can be discrete units of competency and separate from specific vocational focussed units of competency. These discrete units of competency are generic in nature, for example, communicating with customers.

Currently the template for units of competency includes a section titled ‘Foundation Skills’. It is this section of the units of competency in which training package developers are to include reference or mapping to generic competencies. Previously, as part of the development and endorsement process, training package developers were required to reference the *Mayer Key Competencies* or the *Employability Skills Framework*. However, the most current advice (in the Standards for training packages and related policies) does not provide guidance as to how the Foundation Skills section is to be completed. A respondent to this case study indicated that if:

*‘foundation skills are not explicit in the Elements and Performance Criteria, there is an opportunity to describe them within the scope of the unit, providing greater consistency in the unit’s application. Ultimately, the ISCs determine how to best approach this field, depending on the needs of their industry sectors. That is, it is the prerogative of the ISC as to whether or not to use the existing frameworks of the ACSF, CSfW or employability skills, within the context of the Standards for Training Packages and the template requirements.’*  
(National policy maker and government employee).

It is not clear if the NSSC has endorsed this advice, with one interviewee calling the inclusion of these newer frameworks as being ‘policy by stealth’ and that the implementation of generic skills is ‘a bit of a dog’s breakfast right now’. In terms of implementation, the most current version of revised units of competency (those endorsed and those that are in draft) indicates that ISCs are applying these three frameworks differently within the units of competency. This is potentially confusing for end users such as VET practitioners, learners and employers.

Training packages do not describe how people should be trained; however, they do provide the standards or benchmarks for developing programmes to meet the needs of the enterprise or industry. It is the responsibility of individual registered training organizations to develop the training materials and the assessment tools for the relevant units of competency for training and assessment purposes. With changes to units of competency it is the responsibility of the training organizations to review and adjust training and assessment materials.

Regardless of whether the units of competency include implicit or explicit generic skills or were discrete generic units of competencies, the process for development of resources is the same. Trainers and assessors are to interpret the guidance noted in the units of competency, taking into account the specific needs of learners and employers, and develop training materials to provide opportunities for learning and develop assessment tools to enable learners to demonstrate the requisite knowledge and skills.

## **1.5 Assessment and reporting arrangements**

One of the most definitive studies in the field, claimed that ‘there is clearly a need to align teaching and learning strategies for the generic skills with the national promotion of flexible learning, the role of modern learning technologies and meeting the skills needs of the information economy...’ (Kearns, 2001, p. 58). However, the study did not establish just how this alignment will be facilitated, nor did it outline how such skills should be assessed. According to Comyn, even the *Employability skills for the future* (Australian Chamber of Commerce and Industry and Business Council, 2002), seems ‘to have

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<sup>19</sup> <https://www.education.gov.au/training-packages>



been more focussed on issues of definition rather than the arguably more important questions of assessment and reporting' (Comyn, 2002, p.5).

The CS/W indicates that although generic skills were included in all units of competency of VET packages and course curriculum, 'there was no operational definition that trainers could use when designing curricula and assessment tools and no consistent standards' (Australian Government, 2013, p. 2). This lack of guidance appears to be a consistent theme across the research (for example, Cushnahan, 2009, Clayton et al, 2003, Clayton et al, 2004).

In all instances of generic skills implementation in training packages and course curriculum there has been no requirement to explicitly address the assessment of generic skills when assessing the unit of competency (related to specific knowledge and skills). It has been assumed that these generic skills are implicit in the unit of competency and therefore implicit in the assessment.

Clayton et al (in Gibb, 2004) explored the assessment of generic skills and noted that although respondents raised concerns, these concerns were not unique to generic skills and were issues more broadly expressed about concerns with competency-based assessment in general. Respondents expressed concerns about 'the lack of clarity' and the 'lack of guidance on how to assess them' (ibid, p.164). The report noted that if generic skills were considered, they were typically assessed holistically as part of the overall unit of competency and that consequently, their achievement is inferred. In the case of discrete generic units of competency, assessors utilised similar assessment practices as used with vocationally focussed units of competency.

Although there have been changes in describing generic skills, little has changed in terms of assessment practice. When generic skills are discrete units of competency the skills are directly assessed using an assessment tool and the assessment decision is, as with all competency-based decisions, based on inference. However, in instances where generic skills are assessed holistically within vocational units of competency, then achievement of generic skills can only be inferred.

For discrete generic competencies assessment occurs in a similar fashion to that of other units of competency. This means that assessments may be specific to the unit of competency, and therefore assessed in isolation, or they are clustered with other units of competency resulting in a holistic assessment. However, as assessment and assessment tool development are the responsibility of registered training organizations, there has been no standardized approach to the assessment of generic skills in Australia.

There is no requirement (nor has there been) for registered training organizations to record and report on the assessment of generic skills, or to certify generic skills, or to include any information (descriptive or otherwise) of generic skills achieved in any credentialing process.

However, as part of the earlier implementation of the Employability Skills Framework in training packages, all credentials were required to include a common phrase including a web link to a website that outlined for each specific qualification the employability skills as listed in the training package. This website is no longer functional, given the recent review of units of competency<sup>20</sup> and the use of the use of other generic skills frameworks.<sup>21</sup> There is now no requirement for a reference to generic skills to be included on the credential.

In relation to the reporting of generic skills within the VET sector, the only instance where data is nationally collected is in relation to the statistical outcomes of discrete generic units of competency that are included within a qualification.<sup>22</sup>

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<sup>20</sup> Known as 'streamlining of training packages'.

<sup>21</sup> Core Skills for Work Developmental Framework, and Australian Core Skills Framework.

<sup>22</sup> This would include those units of competency listed within the Foundation Skills Training Package. This excludes the OECD's Programme for International Assessment of Adult Competencies survey of literacy, numeracy and problem solving skills 2013.

## 1.6 Professional development of teachers, trainers and institution managers

The major qualification required to train and assess in VET programmes is the Certificate IV in Training and Assessment. This qualification includes knowledge and skills related to competency-based assessment, delivery and facilitation, and learning and design. However, there is no explicit requirement within that qualification or within the specific units of competency related to training and assessment that specifically relates to training and assessing generic skills. The inclusion of assessing generic skills in training programmes for trainers, therefore, is the concern of the individual training provider or trainer.

With the introduction of the Employability Skills Framework into training packages and course curriculum, an extensive project was conducted by the National Quality Council (NQC) with funding provided through the Australian Government Department of Education Employment and Workplace Relations and state and territory governments. This project included the development of a range of supporting products for trainers including clarifying definitions, strategies for professional development, for assessing and for collaborating with industry.<sup>23</sup>

However, with the very recent introduction into training packages and course curriculum of the CSfW and ACSF, there has been minimal professional development or dissemination of how to address these core skills into training and assessment strategies and materials or indeed any promotion to employers. At this stage training package developers have undergone some limited training. This is strongly contrasted to the release of the ACSF in the further education sector which had extensive professional development on its release. Clayton et al (in Gibb, 2004) noted that in terms of capacity development practitioners wanted better information to support assessment decision-making as well as specific resources and funding dedicated to assessment of employability skills. In addition, Gibb (2004) notes that additional strategies to support the training and assessment of employability skills include professional development and sharing good practice. One person interviewed (policy maker and researcher) for this case study noted that ‘little seems to have changed’.

## 1.7 Core skills awareness raising and social marketing

Since the 1990s there has been extensive research in the Australian VET sector on training and assessing generic skills. However, social marketing has been limited and most of the advice from the *Employability Skills Framework* products on the NQC website places the onus on individual training organization and trainers to raise awareness with employers, students and parents.

With the introduction of the *Employability Skills Framework* into training packages and course curriculum, the NQC project included products for trainers and employers, including promotional flyers. Various dissemination workshops were also conducted nationally.

In relation to the implementation of the recently released *Core Skills for Work Developmental Framework*, one interviewee (policy maker) for this case study indicated that ‘it is too early for professional development’ and another indicated that ‘trainers are asking where did this framework come from?’ Currently the *Core Skills for Work Developmental Framework* is loaded on the Commonwealth website and there has been little time for implementation.

However, without a requirement to separately report generic skills (embedded in units of competency) it is unlikely that any marketing or awareness programme will result in widespread recognition by training providers of the value of generic skills.

## 1.8 Monitoring and evaluation

The review of units of competency within training packages and course curriculum is embedded within the endorsement and continuous improvement processes approved by the NSSC. However, whilst the introduction of each new framework has generated research in the area, the impetus for the

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<sup>23</sup> Most of these products were developed in 2008.

introduction and monitoring of these frameworks has been influenced more by political imperatives than by a desire to evaluate, and thus monitor, alternate approaches to generic skills development.

Consequently, beyond the extensive pilot evaluation of the Mayer Key Competencies (in the 1990's) there has been very limited monitoring and evaluation of the effectiveness of generic skills initiatives at government policy level, although since the 1990's there has been extensive research of the Australian VET context. This research has addressed policy directions and initiatives, policy views as well as employer, training provider and student perspectives.

## 1.9 Conclusion, major issues and learning points

The current Australian VET context although described as 'strong' by the OECD (Hoeckel et al., 2008) belies the underlying challenge of constant change, including in the approaches to generic skills in both training packages and course curriculum. With changes to training packages and approaches to generic skills, the difficulty of shifting training and assessment practice has been evident with the move from Mayer Key Competencies to the Employability Skills Framework and now the inclusion of the CSfW and ACSF. What these varied changes imply is that there is an issue with competency-based assessment and as one interviewee (training provider representative) noted 'that despite several decades of attempts to improve assessment, it remains the "Achilles heel" of the VET sector'.

Currently, the lack of clear and transparent advice on documenting generic skills in training packages and for VET practitioners the lack of guidance, professional development and exemplars of training materials and assessment tools indicates that there is no clear policy direction as to implementing generic skills in VET in Australia. Without clear guidance or direction regarding generic skills it is unlikely that there will be widespread acceptance and recognition of the value of generic skills by training providers, learners or employers.

**Table 1.2: Definitions**

<b>Training package</b>	<p>A training package is a set of nationally endorsed standards and qualifications for recognising and assessing people's skills in a specific industry, industry sector or enterprise. They are developed by national ISCs.</p> <p>Service Skills Australia, <a href="http://www.serviceskills.com.au/about-training-packages">http://www.serviceskills.com.au/about-training-packages</a></p>
<b>Course curriculum</b>	<p>Accredited courses address skill requirements for industry, enterprises and the community where these are not covered in nationally endorsed training packages. They have the capacity to address changes in skill needs, and the needs of emerging and converging industries and industry sectors.</p> <p>Training Packages @Work, Back to Basics Ed 4. Commonwealth of Australia 2011.</p>

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## Chile

### Development of core competencies in Vocational Education and Training

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#### 2.1 Introduction

Chile is amongst the countries that can boast a high rate of educational development. This position is primarily due to the strong expansion of coverage and a high retention of students within the system. Today the first quintile has a preschool participation rate of 30 per cent, 98 per cent in primary school, 88 per cent in high school, and 15 per cent at tertiary level. This is a leap that 20 years ago nobody could have imagined.

This has meant that in the last 15 years education has become a high priority in family spending, and in the national budget. However, our education system has a poor performance rating, according to standardized international tests. This is due to the weight of social inequality. The more inequality in society, the greater the challenge faced by educational institutions, which need to compensate for these socio-economic inequalities, and to lead students towards satisfactory standards of achievement. (Brunner, 2005).

##### 2.1.1 Economic situation and the labour market in Chile

The Chilean economy is dynamic with an average growth of 6 per cent in gross domestic product (GDP) over the last 20 years. According to the International Monetary Fund the per capita income in 2015 will exceed USD 20'000. Chile is an exporter of raw materials and its growth is strongly related to the high price of copper and other minerals.

According to the 2012 Census, Chile has a total population of 17,402,630, with 8,612,483 males and 8,790,147 females. The Metropolitan Region has the highest concentration of population in the country with 7,007,620 inhabitants, which represents 40.3 per cent of the total population.

With respect to the labour force, the total number of employed is 7,564,350 (INE, 2012a). Participation in the labour force reached 59.7 per cent, composed of 72.1 per cent males, and 47.8 per cent females. In the last five years the average annual unemployment rate was 7.7 per cent, based on quarterly unemployment levels (INE, 2012b).

The literate population has risen 1.97 percentage points over the last 10 years, rising higher than those recorded in the previous censuses of 1992 and 2002 (1.2 percentage points). Average number of years schooling is 10.4. In 2002, 10.1 per cent of Chilean homes had Internet access, which rose to 44.4 per cent, according to the 2012 Census. People who can speak English number 1,585,027, which is 9.5 per cent of the population.

Despite good indicators, the unequal distribution of wealth is still present in significant levels. The wealthiest 10 per cent of the population earn a disproportionate share of the national income, which maintains the gap between rich and poor. "The gap between the richest and the poorest is considerable; the wealthiest 20 per cent of the population earns 12 times more than the poorest 20 per cent of the population (OECD, 2013).

This inequality is reflected in the accessibility to a quality education, which is dependent on income level. The disparity in the quality of education offered contributes to a deepening inequality.

According to Aequalis, Forum for Higher Education, the context of VET has changed significantly in recent years. The most relevant change has been the growth in tertiary student enrolments, which has quadrupled in the last 20 years with a gross coverage<sup>24</sup> close to 50 per cent (this includes university

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<sup>24</sup> This is the ratio of the total number attending high school to the total population between the ages of 18-24.

enrolments). This increase is within the context of significant social change; a significant percentage of the population has overcome a level of poverty, the rate of high school students graduating is at 80 per cent (Mineduc, 2011), and the amount of intellectual work is growing rapidly, in contrast to low-skilled occupations, which are stagnant.

## 2.2 The VET system

In Chile the VET system includes secondary VET (2 years), tertiary (2 or 4 years), and workplace training. In 2010, secondary VET had 185,444 students enrolled, which represents 43 per cent of the total number of students enrolled at these levels (ibid). Training providers are mainly private and the students have access to a system of scholarships and loans.

Secondary VET is organized into 34 specialty areas, 17 cited for 15 economic sectors (Mineduc, 2013). Graduation profiles are linked to occupational competencies that enable for continuing studies at a tertiary level and/or entering the labour market. According to Larrañaga, Cabezas and Dussaillant (2013), “there is a greater demand for VET teaching amongst vulnerable groups and those with lower academic achievement”. VET training should not only be considered as a fast track to employment as the study also showed that 41.4 per cent of these young people continue onto higher education.

Tertiary education is delivered by vocational training centers, professional institutes and universities that grant high-level technical qualifications or professional qualifications (without bachelor degrees).

Analysis of vocational training, at secondary and tertiary levels, indicates that there is a low graduation rate, employability issues in a number of specialties, unattractive wage packages, and weak labour prospects in the future (Mineduc, 2009). This situation is aggravated by a fragile relationship with the productive sectors, lack of coordination mechanism of the university system and curricular flaws that show content overlap with secondary education.

Training for informal employment is regulated by Law No. 19,518, 1997, which establishes a National Training System (SENCE). Private training institutions provide training services and sell their services to companies (financed via tax rebates), and to the State for the benefit of the unemployed or those of limited resources (financed by the national budget).

The VET system does not have a regulated national qualifications framework, except for an incipient development in the mining sector based on the Australian model of qualifications (Mining Training Council, 2013).

The lack of a framework hinders the development of relevant training opportunities, as well as the existence of a system to recognize prior learning. There is also no link between job training delivered by the formal education system and the vocational training system.

A major effort to build an integrated system was via Chile Califica, the Chilean Qualification Programme, which was financed by the State and by the World Bank, between 2002 and 2009. It intended to establish the foundations for an ongoing learning system. Within the programme framework, competence profile collection, assessment, training and training certification was carried out.

In order to support this initiative, the National System of Labour Competencies, ChileValora (Chile Values) was created via Law No. 20,267, 2008. Its objective was, “to formally recognize people’s competencies, regardless of how they had been acquired, and whether or not they had an academic degree awarded for formal education, in accordance with the provisions of Law No. 18,962, Constitutional Organic Law for Education, as well as promote opportunities for individual’s continuous learning and their recognition and value.

The legalization of a tripartite institution, continued the progress made by Chile Califica, which “by 2013 had certified about 665 occupation profiles in 23 productive sectors. The majority of these were in the agricultural and farming sector with 225 accredited profiles (33.8 per cent); followed by mining with 113 (17 per cent); and thirdly with mechanics with 56 (8.4 per cent), according to system figures (Concha, interview, 21 July 2013).



### 2.2.1 Core competencies in the VET system

In Chile there is not an agreement on what is meant by core competencies nor how or where they can be acquired. A study by the OECD indicates that in Chile there is evidence that graduates of vocational and training programmes will probably not develop basic competencies (literacy and the four basic mathematic operations) nor core competencies (behavioral and employability), adequately to gain employment or to support further learning (Kis and Field, 2009). The study added that Chile “requires a strategy to systematically strengthen the core competencies of graduates of vocational training and technical professionals based on the following examples:

- i. 36 per cent of those 15 years old and over, do not have the basic literacy competencies needed to benefit from the educational opportunities offered during their lifetime. The gap is higher for those skills linked to the four basic mathematical operations. 55 per cent of those 15 years old and over have difficulty using them as an effective tool to benefit from a secondary, or higher technical vocational education.
- ii. Core competencies (behavioral and employability) are valued in the labour market, but do not receive attention in training programmes, to ensure that people develop them.
- iii. To those aspiring secondary school students, the training trajectories in secondary education make for weak preparation for tertiary education.
- iv. Core work competencies are increasingly in demand by employers.

If we analyse each of the levels/modes of VET in terms of if they promote or not the teaching of core competencies, the picture is mixed, as described below:

The **secondary level VET** is the only one where core competencies are formalized and compulsory for all students taking the course. This is because the curriculum identifies 12 learning objectives that are common across the 34 graduation profiles (Mineduc, 2013), and were defined in consultation with the productive sector.

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#### Examples of generic learning objectives

##### Secondary school vocational training

1. Communicate clearly orally and in writing, use speech and writing relevant to the workplace and in relation with others.
2. Read and use various types of texts relevant to the job, such as technical specifications, various regulations, labour laws, as well as news and articles that enrich their work experience.
3. Perform tasks neatly, meeting deadlines and quality standards, and seeking relevant alternatives and solutions when problems arise.
4. Work effectively in a team, coordinating activities with others onsite or remotely, requesting and offering cooperation to complete regular and emerging duties.

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Source: Mineduc, 2013.

In the same sector but from the experience derived from pilot projects and/or trials, four interesting initiatives that seek to promote the development of these competencies, are described below.

The first is geared towards the use of technologies in the MineducEnlaces programme that, since 1992, has contributed to the expansion of opportunities and access for teachers, and the education community to new ICTs in the country. In October 2013, the standardized test, SIMCE ICT, is to be applied for the second time. It evaluates abilities in 12 ICT skills, grouped into three areas: information, communication, and ethics and social impact (Enlaces, 2013).

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## ICT Competencies

### Enlaces Programme, Mineduc

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1. The ICT skills matrix for students in the 21<sup>st</sup> Century proposes 20 skills organized into 4 areas: information, communication and collaboration, digital co-existence, and technology. Also, it contains a definition of observable behaviors for 6<sup>th</sup> graders and 8<sup>th</sup> graders, criteria for progress and examples that can be applied to develop skills.
  2. Model user profiles are director, teacher, orienters, and library coordinator.
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Source: Mineduc, Enlaces Programme, 2013.

Another initiative developed and implemented since 2002, for *Fundación Chile*, is the programme *PREPARADO*, which attempts to integrate teaching employability competencies into the curriculum of formal and informal education (*Fundación Chile*, 2004) by facilitating the transition from the world of education to that of business, taking into consideration the requirements of the productive sector. Thirdly, the *Tus Competencias en Ciencias* (Your Science Competencies) programme, implemented by the National Commission for Scientific Research and Technology of Chile (Conicyt) via its Explora programme (<http://www.explora.cl/>), to support its outreach and appreciation for science strategy in the school system using a model of core competencies.

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## Employability Competency Programme Preparado

### FUNDACION CHILE

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1. 21 competency standards grouped into the following 8 areas: communication, team work, learning to learn, use of ICT, project planning and management, initiative and entrepreneurship, personal effectiveness, problem solving.
  2. Includes 56 learning activities aimed at trainers.
  3. About 4,000 trainers trained at the national level.
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Source: Fundación Chile, Educarchile website, 2013, <http://www.fch.cl/iniciativa/educacion/educarchile/>

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## Innovation competencies in science and technology

### TUS COMPETENCIAS EN CIENCIA PROGRAM. EXPLORA-CONICYT

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1. Proposed 11 competency standards: to act with curiosity, to seek opportunities for inquiry, to discover alternative solutions, design a research project, run a project, analyze results and projections, communicate work carried out, exercise critical judgment, learn with others, learn from the process, learn to innovate.
  2. Included 30 learning activities aimed at teachers and grouped into the areas of inquiry, experimentation and projection.
  3. To be implemented across the entire school system (primary and secondary) with a coverage of 2,700 teachers between 2007 and 2011.
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Source: Ministry of Education, Conicyt Explora Programme, 2013, <http://www.explora.cl/>

In 2009 the presence of entrepreneurship in the fundamental and transversal curriculum goals was examined in primary and secondary education; the revision included, amongst other items, an analysis of the initial teacher training programmes (Ministry of Education, European Union, Pontificia Universidad Católica de Chile Consortium). Knowing there was this lack of knowledge, skills and attitudes associated with entrepreneurship, a model known as *IMAGINA* was designed to focus on VET. It was tested as a pilot project and studied more than 30 initiatives currently running at the national level.



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## Competencies for entrepreneurship

### IMAGINA PROGRAMME – DARE TO BEGIN

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1. Has a set of standards grouped into the following areas: identify opportunities, translate ideas into a plan of action, persuade and negotiate, implement a project, act autonomously, results oriented, face challenges and take risks, work collaboratively in groups.
  2. 22 learning activities and a workshop aimed at trainers.
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Source: Ministry of Education, 2013. Vocational Education and Training website: <http://www.mineduc.cl/>

A common denominator in these four initiatives is that in their initial phases they received State funding but were not able to find a formalized space within the technical training system. In some cases, they received support from the private sector to increase their coverage or to extend beyond the pilot programme.<sup>25</sup>

The picture is quite different at **tertiary level VET**. The higher education institutions are autonomous to define and implement their educational projects, and therefore their methodological and pedagogical strategies are very heterogeneous in how they decide to design their educational offerings.

At this level the so-called general competencies tend to be associated with the characteristics of the institutions and/or feebly integrated into the graduate career profiles. A review of three of the tertiary level technical education institutions with the highest number of national enrolments notes:

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#### Core competencies found in the 3 vocational training institutions with the highest coverage in Chile

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Education Institution	Core competencies claimed
<b>Universidad Tecnológica INACAP</b>	Entrepreneurship; Self-management; Problem solving; Quality control; Professional ethics; Team work; Social commitment;; Critical thinking
<b>Instituto Profesional y Centro de Formación Técnica DUOC-UC</b>	Oral and written communication in Spanish; Basic and functional communication in English; Mathematical reasoning; Ethics; Entrepreneurship
<b>Instituto Profesional y Centro de Formación Técnica Santo Tomás</b>	Oral and written communication in Spanish; Use of information and communication technologies; Respect for the truth, human dignity and solidarity; to integrate and contribute in a work teams; Apply ethical standards in personal, professional and social life; Demonstrate ability to work in interdisciplinary and multidisciplinary teams; Use self-learning as a lifelong and ongoing tool to enhance professional development

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Source: Prepared based on the information available from the websites of the 3 mentioned institutions. 2013. <http://www.mineduc.cl/>

<http://www.fch.cl/iniciativa/educacion/educarchile/>

<http://www.explora.cl/>

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<sup>25</sup> Some examples of private sector promotion include: Collahuasi Mining Foundation with employability competency (2011-2014), Endeavour promoting an entrepreneurship culture in conjunction with *Fundación Chile* and Networking for Teaching Entrepreneurship (2010-2013), Walmart with the Model Social Retail School in conjunction with Duoc and the International Youth Foundation (2013).

A 2008 study carried out by the MIDE-UC Assessment Centre divulged a number of standout conclusions in the opinion of respondents (graduates, employers, human resource experts, teachers) with respect to the weakness of graduates in three areas: oral and written expression, interpersonal skills, and preparedness for the workplace. These areas were not addressed by a tertiary level education and affect job performance. The study recommended that they should be included in the curriculum.

Regarding *workplace training*, it is important to analyze course availability both for employees and for vulnerable groups. Evaluating demand for State subsidized training implemented by businesses, it can be concluded that around 30 per cent of the workforce undertakes courses associated to soft skill development. Those in greatest demand are: languages, user-level computer literacy, and customer service (SENCE, 2011).

In programmes where the State acts as the “buyer”, meaning those training programmes aimed at socially vulnerable sectors, the contents are technically oriented. SENCE recommends training providers to allocate a certain percentage of tutoring hours towards a vocational training module. The contents generally refer to labour rights and duties, information literacy and/or core competencies, and are selected according to each entity’s criteria.

Finally, in relation to the *work certification system*, a catalogue of more than 600 professional profiles, related to 21 productive areas, is available. Each provides a description of expected performance levels, associated to technical, behavioral or core competencies. These standards serve as a guide in the process of worker evaluation and certification, and also for the design of a training programme structured according to competence.

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**National Occupational Profile Catalogue example**

**Chilevalora Commission**

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**Occupational profile: customer service, commercial sector, supermarket subsector**

<b>Competence</b>	<b>Performance criteria</b>
<b>(1 example)</b>	<b>(1 example)</b>
<i>Technical competence</i>	The customer is looked after in a friendly manner, identifying alternative available solutions, according to set procedures
<b>Handling customer complaints according to set procedures</b>	
<i>Behavioral Competence</i>	Displays a positive attitude when listening to clients, maintaining eye contact and a body posture suitable for customer service
<b>Communication skills and assertiveness</b>	

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Source: ChileValora Commission. Year 2013. Visit [www.chilevalora.cl](http://www.chilevalora.cl) Occupational profile extract.

### **2.2.2 The perception of relevant stakeholders at a national level regarding core competencies**

In 2010, a sample group of Chilean companies completed a survey designed by the Inter-American Development Bank (IDB), which focused on skills demand. Conclusions indicated that, during the recruitment process, more than half of the surveyed employers assigned more weight to desirable personality and behavioural traits, than to technical knowledge specific to job tasks, especially in relation to young people.

The study revealed 80 per cent of the respondents believed that socio-emotional and interpersonal behavior skills were scarce among job applicants, which represented a barrier for their employment prospects (IDB, 2012).

However, according to G. Donoso (interview, 8 August 2013) “company demand is merely a formality and is not reflected in the job training programmes they support, where the focus is mostly technical, or on hiring young people with low qualifications”.

There are several initiatives attempting to link the educational system with business in order to improve the quality and relevance of training programs, and also to ease the education to labour market transition. Regarding this issue, Concha (interview, 21 July 2013) values the involvement of the productive sector, workers, and State representatives in tripartite meetings held in accordance with the *ChileValora* system, the purpose of which is to match technical and behavioural competencies as performance standards expected in an occupational profile.

Further examples can be found among joint projects funded by the Ministry of Education (Mineduc), in which the business community helps to define graduate profiles and course structure. Nevertheless, A. Villarzú (interview, 25 July 2013) points out “business sector involvement does not yet translate into innovative measures concerning training, which would allow for the development of core competencies”. It is important to highlight an increase in research related to VET during the last five years within academic circles. Renowned academic teams from different institutions have accepted State funds to promote research and development, in their research field.<sup>26</sup>

In relation to this, VET has become part of the public debate, and for the first time has been included in speeches and programmes of candidates in the November 2013 presidential elections.

But, according to J. J. Brunner (interview, 26 July 2013), inconsistencies appear when comparing the high value given to these competencies in public discourse, and to recruitment and selection policies of companies that evaluate technical abilities. He adds that core competencies would be a key factor in job permanence and promotion prospects, but not significant enough to access the labour market. The latter particularly applies to vulnerable sectors that have high rotation, low wage, and precarious employment.

### **2.2.3 Development of core competencies in the system**

#### **i. Incorporation of core competencies into secondary vocational education and training**

Fontaine and Honorato (interview, 29 July 2013) claim that, “core competencies tend to be set aside in the classroom when a specialization is deployed”. They add that regardless that the Mineduc makes graduate profiles and course structure available for VET planners, no standardized evaluation or teaching support resources have been developed in any field of this teaching-learning area.

Likewise, these authors indicate that the adjustment of the curriculum structure for 2013 aims to solve the problem of “invisibility” of core competencies, by incorporating them into the new study programmes. These programmes, currently in the design stage, will include evaluation indicators and didactic activities, and must receive approval from the National Education Board.

However, in an interview, E. De Padua, Head of the Education Department, National Education Board (interview, 18 July 2013) stated that while the National Education Board members fulfill their role to safeguard and promote quality in education, they also tend to focus more on technical competencies contained in graduate profiles.

The experiences of core competencies’ development, as mentioned previously, have been implemented mainly outside of the main curriculum, during spare time or as extracurricular activities.

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<sup>26</sup> Among the most important works published in relation to VET during the last decade are: Design and implementation of secondary vocational education reforms in the late ‘90s (Miranda, 2003); Espinoza, H., 2010; 2009 Vocational Education External Commission (*Comisión Externa de Formación Técnica*) report and the Mineduc Research Center report (Sevilla, 2011).

Only the *Explora* programme evaluated its own programme's results, whereas *PREPARADO* (employment) or *IMAGINA* (entrepreneurship) failed to do so. A. Villarzú (interview, 25 July 2013) points out that even if these projects have not permeated the educational system, they embody an important reference in that they present the community with competency models and the educational strategy to make them possible.

## **ii. Incorporation of core competencies in tertiary education**

During the first year of tertiary VET, student withdrawal rates are on average nearly 40 per cent and during the second year it exceeds 50 per cent of total enrolments. Segment growth and a proliferation of non-selective institutions means there is demand from low income young people and/or adults, those suffering from limited cultural capital (a result of poor standards entrenched in those primary and secondary educational establishments where they completed their studies) and who are generally their family's first generation to access tertiary education (Aequalis, 2013).

This situation has driven higher education institutions to search for strategies that favour student retention rates and improved learning results. One of the alternatives widely discussed is the leveling out of programmes by focusing on literacy and mathematics (propaedeutics).

On the other hand, deep focus on competencies has meant a change in paradigm within higher education institutions, shifting from education based on content to education based on results.

This shift can be seen in larger scale initiatives linking education and work, and in the perspective derived from certain international experiences, such as the German dual model, the Australian skills councils, and professional training in Basque country.

## **iii. Integration of core competencies in workplace training**

Training can be geared towards these competencies when the company requires it, for example: effective communication, leadership or teamwork courses. These courses are generally short and do not include learning evaluations.

In vocational education programmes for the unemployed, first-time job seekers, or poorly qualified workers from vulnerable social groups, core competencies are integrated into training and/or literacy modules. These modules comprise almost 10 per cent of the total number of hours in the course. Standardized evaluations or didactic support materials are not available.

According to P. Agurto (interview, 29 July 2013), since SENCE there are experiences incorporating employment competence development into labour mediation programmes such as job preparation workshops and personalized support sessions for job seekers.

Concha (interview, 21 July 2013) points out an interesting innovation jointly developed by SENCE and the *ChileValora* commission. They organized educational responses (training plans and modules) for nearly 200 occupational profiles in the National Catalogue. In this model, behavioural competencies present in each profile are incorporated into training modules and are validated for each productive sector.

## **iv. Assessment and reporting for core competencies development**

According to P. Sevilla (interview, 13 August 2013), there is no national agreement to integrate core competencies into the curriculum. To date, nor has a monitoring and evaluation system been implemented for initiatives at both secondary and tertiary level. One step toward this was the trial incorporation of the ICT test into the SIMCE. In the first trial of the pilot, half of secondary students did not achieve a minimum level result (ENLACES, 2012).

Brunner (interview, 26 July 2013) believes the lack of a standardized mechanism to evaluate learning results associated with these kinds of competencies may be one of the main problems to overcome in order to consolidate its formalization in the educational system. As a rule, educational institutions are

unaware of their own specific contributions, in terms of boosting student retention and graduate employability, and therefore do not invest in these areas.

In its 2009 report, the Vocational Education and Training Commission proposed to design and implement a competence evaluation system that would assess learning achievements with a group of key core competencies for the working environment and to enable the continuation of successful educational pathways in tertiary vocational education. To date, this initiative has yet to move forward.

At tertiary level, each institution develops their own evaluation system, and no information is publicly available in relation to learning results. In the realm of informal education, training courses carried out in SENCE programmes do not include evaluation components. Instead, they only provide assistance to gain access to the diploma.

#### **v. Social marketing of core competencies**

The National Innovation Council for Competitiveness (CNIC) created in 2005, has been a major advocate in areas of innovation, technology and entrepreneurship. In their most recent report, CNIC emphasized the importance of an education based on the broadening of spectrums and the learning of skills from diverse areas, not just those in the realm of science and technology (CNIC, 2013). According to the OECD, in 2012 Chile placed second in Latin America in its support for entrepreneurship, but this has not penetrated into the VET system.

A recent valuable contribution is the educational website *Educarchile*, which promotes skills for the 21st century through support material for the education community and acknowledgement of innovative practice (Ministry of Education, 2013). Finally, it is worth mentioning that there is a lack of trade fairs and national competitions aimed at highlighting and/or promoting the development of core competencies although there are some private initiatives that foster them, as mentioned earlier.

#### **vi. Training and further education for educators in the field of core competencies**

Initial and continuing education for teachers in this area is inadequate. Since 2007 there have been continuing education opportunities for secondary school vocational education teachers, intended to equip them with teaching and technical competencies within their specialization. However, the absence of associated monitoring and assessment mechanisms prevents it from being certain whether these efforts have truly made an improvement in teaching and learning processes (Sevilla, 2011).

In relation to initial training, and in the words of Cox (interview, 27 July 2013), one of the changes currently underway which will have a considerable impact on the quality of education is the implementation of guiding standards for a teaching degree. These standards have been defined for both primary and secondary education. The end result of this was the identification of the basic and minimum knowledge required by each teacher, relevant to their subject and to the teaching of the same, as well as core competencies, professional dispositions and attitudes required to perform effectively. Yet, no specific standards were designed for VET.

For educators working at the tertiary level there are initial and continuing education opportunities, offered by tertiary institutions. Of all the programs revised, only the DUOC-UC Professional Institute explicitly considers the development of core competencies for teachers.

No register of technical educators or training instructors is available, which would enable the identification of who and how many people are providing VET programmes. This makes it difficult to measure progress in the continuing education sphere and the gaps that need to be filled. Additionally, there isn't a training facilitator profile, but Concha (interview, 21 July 2013) indicates that SENCE and *ChileValora* are working on this issue.

#### **vii. Critical issues and learning points**

It follows then that the incorporation of core competencies into the VET system is still very nascent.

The stakeholders in the system, both public and private, understand that it is very important to assign State responsibility for vocational training public policies. In this sense, the education system, secondary as well as tertiary, holds the high expectations of its students, their families and of employers.

The experiences accrued over the last 15 years have been enthusiastically received by students and teachers, particularly at the secondary level. Unfortunately, evaluation and dissemination efforts have not matched this sentiment, and have only managed to survive in the memory of the community. This makes it extremely difficult to gather achievements, and failures, in order to make them available to the system, and to give the process a degree of continuity.

The role of the State is diminished by the very structure of the system. It can only regulate via the secondary school curriculum, and in training via the terms of reference in the recruitment of training service providers. In the case of tertiary education it only has the means to promote and disseminate good practice, and to encourage research and development.

In recent years the discussion has moved forward in relation to the importance of “organizing” the system via a qualifications frameworks but to date this has only partially advanced. The progress of the mining sector as coordinated by the Council of Mining Training, and the decision of SENCE and *ChileValora* to promote the design of a qualifications framework for vocational training and workplace certification (with the technical support from ILO-Cinterfor and the Labour Market Unit of the IDB) constitutes a benchmark for progress towards a national framework.

Still pending are discussions relating to the organizational criteria of qualifications in the Chilean labour market so as to move towards an institutional arrangement facilitating the participation of both the Ministries of Education and Labour. In the past this has been a real obstacle in the advancement of system coordination. This arrangement should consider the participation of business representatives and employees.

In summary, and reviewing each of the sub-systems discussed above, there are different levels for development and improvement possibilities that become apparent:

- a) Secondary VET: this is where major advances have been made via the core competencies that have been incorporated as generic learning objectives for all specialties. The problem is there is a considerable gap between the prescribed curriculum and what ultimately occurs in the classroom. In this sense the announcement made by the Ministry of Education regarding the creation of programmes of study for each specialization, and to include examples of indicators for the assessment of generic learning objectives, could be seen as a useful measure.
- b) Tertiary VET: because of the institutions’ autonomy it is very difficult to organize a systematic change at this level. It is possible that the increase in enrolments, and (therefore) the pressure of their graduates (for employability), will motivate the institutions to “invest” in core competencies for its students. Currently, they are doing so for basic competencies (mathematics, literacy).
- c) Training: at this level, the State is a major customer in securing training for vulnerable groups, therefore, its ability to influence this matter is very high. In this sense, the Programme to Support Effectiveness of SENCE (IDB loan) is an opportunity as it seeks an improvement in the quality and relevance of training programmes.



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## India

### Review of efforts to integrate core skills for employability in vocational education and training systems

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#### Study background and objectives

Given the increased policy focus on youth employment and school-to-work transition in India, there is a need to identify the employability or core/generic skills needed by skilled workers in India. These generic skills are in increased demand from employers and from the industry as a whole and are seen to contribute to increased employability among young people. With the demographic equilibrium of India shifting towards the youth, the sheer numbers of young people who will be entering the labour market necessitate the identification and mapping of generic skills. Another reason for mapping core skills is their role in continuing the process for learning and upgrading of skills in any individual. With the high levels of migration prevalent in the country, the need for skilled migration also comes to the fore to enable a culture of lifelong learning.

This study was commissioned by the ILO as part of a review of efforts to integrate core/generic skills in VET systems in India.

#### Objectives

The country study seeks to address the following themes:

- i. The skill set(s) that are considered core/generic.
- ii. The kind of core/generic skills that are currently being imparted in educational and vocational training institutions.
- iii. The current system of identifying and mapping core/generic skills.
- iv. The methodologies that are used to map the outcomes and impact of core/generic skills.
- v. The core/generic skills which are likely to be required in future, given the developing nature of the Indian economy.
- vi. The challenges faced by stakeholders in integrating core/generic skills, in terms of resources, assessment, reporting, peoples' attitudes etc.
- vii. The strategies followed by public and private sectors to integrate core/generic skills, such as social marketing, subsidized training to learners, incentives to learners in the form of increased wages and position etc.

The core of the study is a review of existing measures to improve how core skills are developed and recognized and the perceptions of key stakeholders (identified in consultation with the ILO and its affiliates). Accordingly, the conclusions carry the caveat that they are based on the subjective, though expert, views of specific individuals representing the institutional stakeholders. The objective assessment of either gaps in data provision or of institutional capacity is not a goal of this study.

### 3.1 Introduction

India is one of the world's fastest growing economies, with a GDP growth rate of 5.8 per cent over the past two decades (Smith and Kemmis, 2012). Traditionally an agrarian economy, the introduction of economic reforms in 1991 is seen as the turning point in India's post-independence economic history, providing a break from the low growth trap in which the country's economy had been caught for decades earlier. This sustained high rate of growth has been the most important achievement of the Indian economy in recent years, driven by the expansion of the services sector which has consistently been growing faster than other sectors. With a share of 55.6 per cent of GDP, services now dominate the economy; the industrial and agricultural sectors make up 26.3 per cent and 18.1 per cent respectively (ibid).

India is the second largest country in the world in terms of population size, and forecasts suggest that before 2030 it will surpass China to become the world's most populous country. India's 487.6 million-strong labour force is also the world's second largest. A majority of the workforce is employed in the agricultural sector and for the economy to expect further growth a large portion of them will have to migrate from the primary sector to the secondary and tertiary sectors. The skill sets required in both these sectors are very different from those in the agro-sector.

Education, including all aspects of higher and college education, falls under the purview of the Ministry of Human Resource Development (MHRD). The University Grants Commission provides funds in the form of grants and also sets standards for teaching, examinations and research in universities. The All India Council for Technical Education is the regulatory body for technical education in the country and it aims to promote quality in technical education, plan and coordinate the development of the technical education system, and maintain norms and standards. The VET infrastructure is largely regulated by the Ministry of Labour and Employment's (MoLE's) DGET. This infrastructure primarily includes both state run Industrial Training Institutes (ITIs) and private ITIs in which training is provided in 32 engineering and 22 non-engineering trades approved by the National Council for Vocational Training (NCVT) to young people aged 15-25.

The NCVT plays a key role in the formation of training curricula, policies, standards and certifications. The National Skill Development Corporation (NSDC) has been set up under a Public-Private Partnership mode under the Ministry of Finance to provide funding as well as to coordinate private sector initiatives in skills development, most notably the setting up of Sector Skills Councils (SSCs). Most recently, the National Skill Development Agency is in the process of being set up to coordinate all action on skills development in India. The NSQF, which aims to map all recognized qualifications in India into one unified framework, is also in the process of being developed by the MHRD and the MoLE with support from various industry partners, both domestic and international. The framework intends to help achieve more flexibility and greater vertical and horizontal mobility for learners throughout India's education and training systems. A pilot programme to implement the qualifications framework is also underway in some states, most notable among which is Haryana's National Vocational Educational Qualification Framework (NVEQF) pilot programme.

### 3.2 Overview and conceptualisation of core skills in VET

The ILO has defined core work skills as 'the ability to learn and adapt; read, write and compute competently; listen and communicate effectively; think creatively; solve problems independently; manage oneself at work; interact with co-workers; work in teams or groups; handle basic technology, lead effectively as well as follow supervision'. In the Indian VET scenario, there have been recent developments in the CTS<sup>27</sup> curriculum offered in ITIs across the country in which a new subject, 'employability skills', has been added in the last academic session (replacing 'social studies') and is

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<sup>27</sup> The DGET initiated Craftsmen Training Scheme (CTS) in 1950 by establishing about 50 ITIs for imparting skills in various vocational trades to meet the skilled manpower requirements for technology and industrial growth of the country. Training is imparted in 49 engineering and 49 non-engineering trades through ITI which function under the administrative control of the respective State Governments/UTs /private organizations.

common for all trades. The syllabus of the course was first drafted and then discussed in a trade committee meeting held under the chairmanship of the Director General of Employment and Training and supported by industry partners such as the Confederation of Indian Industry (CII). The syllabus was then finalized after incorporating comments and suggestions offered by experts during the meeting, and was also approved by members of the NCVT for implementation. The instructional media was developed by the National Institute of Manpower Instruction (NIMI). The topics listed in the employability skills course are:

- i. English language course
- ii. Communication skills
- iii. Quality tools which serves as an introduction to quality parameters
- iv. Occupational safety and health
- v. Entrepreneurship

The Modular Employable Scheme of the DGET also has a course on ‘Soft Skills for Employability Sector’ which looks to identify a minimum level of skills required to find employment in the labour market. The Skill Development Initiative Scheme too has modules on soft skills for learners with a separate course for spoken English and communication skills. However the stakeholder interviews revealed that very little has been implemented as far as other core skills are concerned and specific skills which are related to a particular trade are given more priority than transferrable skills when imparting training to learners.

*“In any vocational training set up the emphasis is on specialized skills related to a particular trade rather than transferrable skills from the point of view of the learner”*

*An interviewee*

Almost every MES course also has embedded within it modules on some form of core skill training. The MES lists the following competencies that learners are required to have developed after the completion of its course on soft skills for employability:

- i. Communication skills
- ii. Better usage of the English language/vernacular language
- iii. Presentation skills
- iv. Self-management
- v. Resume preparation
- vi. Group discussion participation/facing techniques
- vii. Interview facing techniques

The following competencies should also be developed during level-II and higher courses:

- i. Ability to plan, organize and coordinate
- ii. Creative thinking, problem solving and decision-making
- iii. Leadership
- iv. Ability to bear stress
- v. Negotiation

To address the issue of mismatch of demand and supply of skills, along with the CTS curriculum, the Revised Centrally Sponsored Scheme of “Vocationalization of Higher Secondary Education” also echoes the ideology of integrating general academic education, vocational education, vocational training and higher education as a comprehensive system. It emphasises on developing the following

employability skills: (i) Basic communication skills, (ii) Basic IT skills, (iii) Customer care services, (iv) Etiquettes and manners, (v) Art of public speaking, (vi) Front Office Management, (vii) Telephone communication skills, (viii) Interview skills, (ix) Interpersonal or social skills, (x) Team building skills (xi) Employment seeking skills.<sup>28</sup> The existing scheme is presently under revision to address the issue of enhancement of employability of youth through competency-based modular vocational courses, to maintain their competitiveness through provision of multi entry and multi exit learning opportunities and vertical mobility/interchangeability in qualifications, to fill the gap between educated and employable and to decrease the pressure on academic higher education.

Apart from these initiatives of the DGET and the MHRD there is no formal definition of core skills and neither is there a discrete set of core skills that have been identified. There are plans to start a similar course for the Apprenticeship Training Scheme but as of now it has not been introduced. While a majority of the stakeholders interviewed were not familiar with the actual definitive skills identified by the ILO, a preliminary list of ‘employability skills’ has been identified drawing from their responses, based on their own experience and familiarity with both training and curriculum development. These include:

- i. **Communicative skills:** the ability to deliver thoughts and ideas clearly and effectively both orally and in writing and being able to listen and understand the viewpoints of other parties.
- ii. **Critical thinking and problem solving skills:** the ability to identify and analyse problems in various situations as well as evaluate possible courses of action.
- iii. **Team work:** the ability to work with a diverse group of people to produce tangible results while recognising and respecting the attitudes, beliefs and behaviour of others.
- iv. **Information and technology skills:** the ability to manage basic computer operations such as word processing, working with tabulated data and preparing presentations as well as using the internet for information.
- v. **Entrepreneurship skills:** the ability to identify opportunities for self-employment and to work towards implementing ideas to create one’s own enterprise.
- vi. **Ethics, moral and professional codes:** enabling one to maintain ethical conduct at the workplace as well as in one’s personal life and also being able to make decisions based on a strict moral and professional code.
- vii. **Leadership skills:** to enable one to take charge of work related assignments and lead a team as and when situations arise.

This indicative list, based on responses of interviewees, mirrors the definitive skills as laid down by various international organizations. It is important to note that interviewees also listed literacy and numeracy as foundation skills required by learners to then further acquire employability skills. It was thus an assumption that learners in technical trades will have certain levels of literacy and numerical skills before they proceed to absorb other core skills.

*“Students enrolled in any vocational training course have had some form of primary education, especially in maths and English, which is necessary for them to be eligible for taking up training.”*

*An interviewee*

The National Skill Development Policy identifies the need for generic training in the changing and globalizing economy but there is no definition of the same.<sup>29</sup> As a result, different stakeholders have their own separate understanding of the term.

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<sup>28</sup> From MHRD’s revised centrally sponsored scheme of “vocationalization of higher secondary education” retrieved from <http://www.vef.co.in/image/doc/rtp/revcssvhse.pdf>

<sup>29</sup> See point 8.1.1 [http://labour.nic.in/upload/uplo\\_adfiles/files/Policies/NationalSkillDevelopmentPolicyMar09.pdf](http://labour.nic.in/upload/uplo_adfiles/files/Policies/NationalSkillDevelopmentPolicyMar09.pdf)

The SSCs also have a mandate to develop National Occupational Standards (NOS) which aim to specify the standard of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Generic/core skills are also a part of the NOS level descriptors as per the format listed by the NSDC and form an important part of every individual job role.

### 3.3 Stakeholder involvement

Information provided by stakeholders so far has not revealed the involvement of a wide range of stakeholders in the development of core skills into the VET system in India. Generally, as a process, curriculum development is concerned with reviewing, planning, developing, implementing and maintaining curricula while ensuring that the stakeholders engaged in this process have a high level of commitment to and ownership of the curricula.

As far as the CTS is concerned, for the course on employability skills, the curriculum and practical training modules are based on inputs from industry and academia. The entire process of curriculum development is carried out with close involvement of employer organizations, state governments, subject matter experts, vocational training providers and other stakeholders at each stage.

In particular, a wider role for industry associations in the process of developing curricula and training was stressed upon by most stakeholders interviewed. This involvement, it is felt, will address the changing focus of professions and serve both existing and emerging industries.

*“The new course which addresses employability skills is in tune with what is required by employers and has been developed after extensive consultation with industry partners”.*

*An interviewee*

Private training providers have developed a few courses addressing core skills such as communication and IT skills by gaining extensive feedback from potential employers and industry. Developing these two skills in particular has been seen as a major driver to increase employability of learners and equip them to perform better on the job. The other core skills as identified by international organizations, however, are not generally offered to learners as part of any private training programme.

*“Focused training in communication and computer operations makes it more attractive for companies to hire learners especially when dealing with the services sector”*

*An interviewee*

The development of these offerings, however, is ad-hoc and they are not formal programmes recognized by public assessment bodies. The endorsement of these programmes differs from employer to employer based on their working relationship with the training provider. The development of the NOS is carried out by individual SSCs for their particular sectors and the process involves exhaustive consultation with stakeholders of the sector comprising mainly of small, medium and large employers as a representative sample, who endorse the NOS and Qualification Packs. The core/generic skills identified by the Sector Skills Council (SSC) remain mostly sector centric though and there is a need to identify a set of skills which will be common across industry.

*“There will be a need to facilitate a discussion that can identify the common and minimum employability skills that are present in all the NOS”*

*An interviewee*

After development, the standards are open for public viewing for a month with the purpose of soliciting feedback from educators, academics, employers, workers, civil society and the general public. During this period, all views are considered by the respective SSC and the standards are further developed based on the feedback. After the stipulated period, the standards are then promulgated as NOS.

### 3.4 Curriculum and training delivery

The DGET lists the following procedure for developing course curricula:

- i. Identification of employability skills set in a sector-based on division of work in the labour market.
- ii. Development of training modules corresponding to skills sets identified so as to provide training for specific trades.
- iii. Organization of modules into a course matrix indicating vertical and horizontal mobility. The course matrix depicts pictorially the relationship between various modules of study, prerequisites for higher level modules, and how a learner can progress from one level to another.
- iv. Development of detailed curricula and vetting by a trade committee and by the NCVT.

This procedure is used for developing courses related to employability skills under the CTS and the MES. Both these courses are instances of standalone courses which seek to impart a certain level of employability skills to learners and have separate assessments of the same. When designing the instructional material experts in VET from various industries, ITIs, institutions under the DGET and other organizations are trained to develop the instructional materials for different trades in a manner to help learners assimilate the subject material effectively during the stipulated period of training. They work as media development committee members and develop instructional media packages in association with NIMI.

In the Indian secondary school system core skills are often embedded in the courses offered. This may mean that a learner is expected to develop skills such as communication and team work in the course of his or her study of the regular curriculum of various subjects. Increasingly, emphasis has been given to projects and presentations, which may be seen as an effort to develop team work and communication skills in students.

In the secondary education segment, a standalone concept of imparting core skills training is the Problem Solving Assessment exam that is conducted by the Central Board of Secondary Education which seeks to improve the generic and high order thinking skills of learners and aims to improve scores within the core school subjects. However it does not take into account some aspects of core skills such as team work and oral communication (which are embedded in other parts of the syllabus), focusing more on critical thinking and analytical ability.

*“Students in schools pick up these skills in the classrooms, and it is expected that during project work and practical demonstrations, they will develop them further”*

*An interviewee*

The NVEQF pilot in Haryana lists certain employability skills areas such as communication, responsibility, interpersonal relationships, health and safety, and innovation and creativity as part of its evaluation process. The actual delivery of these skills however has not been documented. In the workplace, however, few organizations actively conduct core skills training for employees and instead assess a candidate’s suitability for job roles on the basis of the level of development of existing qualities in applicants.

*“Any form of training on transferrable skills is almost like a value added service, addressed through a work shop or a day long training programme and is certainly not an integral part of training systems”*

*An interviewee*



### 3.5 Assessment and reporting arrangements

The development of instruments for competence assessment requires the breaking down of broadly defined competencies into sub-competencies or specific skills, so as to relate them to measurable learning outcomes using reliable assessment standards. However, stakeholders repeatedly mentioned that the development of these standards is a work in progress and not much headway has been made in specifying broadly defined employability skills which can be used across sectors.

*“Every sector has a different set of skills which are felt to be generic to that particular sector and are useful in providing mobility within a specific industry”*

*An interviewee*

For assessment of the courses offered under schemes run by the DGET, Assessing Bodies are appointed by the DGET to assess the competencies of the trained persons. The Assessing Body is an independent agency, which is not involved in conducting the training programmes. This, in turn, ensures quality of training and the credibility of the scheme. Keeping in view the target of providing training/testing of one million people throughout the country and to avoid a monopoly situation, multiple assessing bodies are appointed for a sector or an area. The assessing bodies also assist the DGET to develop qualifications and standards for assessment through research and interaction with industry, trainers and academia.

In the case of industry, many employers reinforce and complement some of the core skills by a range of strategies such as remuneration, team awards for quality and customer service and team-centered performance indicators. The delivery of core skill training however has not been documented during the course of the stakeholder interviews.

In the case of formal school education, stakeholders acknowledge that portfolio assessment (based on the collection of evidence showing the learner’s work and output) is becoming more common, precisely because it can be more readily related to the learning context than traditional tests. However, this form of assessment is largely dependent on the administration of individual schools and is not formalized as part of the education board to which the school may be affiliated. Stakeholders have emphasized the use of Continuous and Comprehensive Evaluation (CCE) as a method of assessing a learner’s progress, and this includes assessment of the development of core skills.

A special module on life skills is also included in this evaluation method and is used in teaching of life skills, building upon the social learning theory and how young people learn from their environment; from observing how others behave and what consequences arise from behaviour.

It involves the process of participatory learning using four basic components:

- i. Practical activities
- ii. Feedback and reflections
- iii. Consolidation and reinforcement
- iv. Practical application to day-to-day life challenges

The Haryana NVEQF pilot emphasizes the evaluation of key employability skills through direct observation by teachers/trainers and maintenance of appropriate records for transparency in evaluation. The Employability Skills Aptitude Test by IACM, a private training provider also aims to assess the employability skills of learners through an online examination. It provides feedback to students in the form of a scorecard and also informs certain industry partners about the results.

### 3.6 Professional development of teachers, trainers and institution managers

The consultations with stakeholders revealed that two important points have to be taken into consideration when it comes to the training of teachers. Firstly, the initial and continuing education of teachers should prepare them to facilitate the student’s acquisition of key core skills. This perspective raises questions about the methods, practices and beliefs that are most suitable for the purpose and how they may or may not be currently included in teacher education. The second point is based on the

assumption that since key competencies are to be acquired by every individual, teachers should also acquire them.

### **Box 3.1**

#### **The Wheebox Employability Skills Test (WEST) Initiative by Wheebox and CII**

A notable example of a standalone programme of assessing English language skills, aptitude and also domain skills for different sectors is the WEST.

The initiative, by the global talent assessment company Wheebox and CII, has been developed in consultation with the industry and allows students across 1800 colleges in the country to test their current capacities. It gives a score to the students, thus helping them gauge their skills with respect to the requirements of industry. A final report will also be generated to inform industries (and also policy makers) about the employability of entrants to the workforce and the skills gaps between industry requirements and student abilities.

Private training providers lay more emphasis on the second point and almost uniformly ensure that the trainers of ‘employability skills’ such as good communication skills and IT skills, demonstrate their capabilities in the subject areas. It is felt that they will be better placed to transfer these skills to learners through a mix of theoretical and practical lessons.

Apart from the KEKL initiative, the National Institutes of Technical Teachers’ Training and Research (NITTTRs), which fall under the ambit of the MHRD, also regularly conduct short term training courses for teachers which include forms of core skills training. The most recent example is the in-country programme on Generic Soft Skills Development by NITTTR Chennai which was conducted in association with the Colombo Plan Staff College for Technician Education, Manila and following which participants were expected to:

- i. Appreciate the definitions of generic skills and principles for their development in the context of VET systems;
- ii. Acquire competencies in various soft skills and practice the utilisation of generic skills exercises in assigned tasks; and
- iii. Design a suitable generic skills or soft skills development programmes for students in VET.

### **3.7 Core skills awareness raising/social marketing**

The only notable example of any form of core skills awareness raising has been by the WEST initiative identified earlier. Face to face events, in the form of one-off events or a programme of linked events, are held in partner colleges explaining the importance of core skills and students are urged to test their skills using the WEST.

The initiative also has a digital marketing campaign which uses social media to generate interest among students. The national report which is to be generated from the initiative is also planned to be released this year with the aim of bringing the subject of core skills into the mainstream.

### **Box 3.2**

#### **Core skills training for teachers: Kanumuru Education and Knowledge Limited (KEKL)**

A notable example of exclusive core skills training provided to teachers or trainers is from a private institute; the KEKL, based in Hyderabad, which has a programme covering teacher assessment for core skills. Teachers are trained in core skills and are assessed periodically. Teacher assessment and certification is



based on skill development portfolio, classroom practice and student learning evidence.

The company plans to pilot the core skills training programme for teachers in select schools in Andhra Pradesh in four stages. Each level paves the way to the progressive and wider skill set base for teachers. The training methodology is seen as the most effective way of building and delivering soft skills, oral communication skills, personality development, life skills, thinking skills, group work skills, aesthetic / design skills and information and communication technology skills.

The progressive method seeks to link teacher training with student outcomes and the various stages involved in the programme are listed below:

- Stage I – Communication skills
- Stage II – Basic thinking skills
- Stage III – Higher order thinking skills
- Stage IV – Information and communication skills

Stakeholders emphasized the need for a sustained national campaign to raise awareness on core skills. It is felt that such a campaign would help organizations realize the benefits of core skills training and provide advice and guidance for its effective implementation.

*“If any central body brings core skills to the agenda of training and acknowledges it via a public platform, it will certainly help in raising awareness, and that awareness will lead to renewed interest and appropriate action”*

*An interviewee*

### **3.8 Monitoring and evaluation**

An absence of any formal form of reporting on core skills delivery or testing has resulted in the absence of a system of monitoring or evaluation. Though certain private initiatives have been made, they are too recent to effectively monitor and evaluate results.

It is felt by stakeholders that an effort has to be made by the DGET, supported by the NSDC and its industry partners, to incorporate a standalone scheme of core skills delivery and testing using internationally approved methods. This feature, if embedded as a separate testing facility during a learner’s overall assessment, will encourage students as well as teachers and training providers to put more emphasis on raising the employability of students across a range of different occupations.

*“A separate mandatory test for pre-identified skills which can be used in any occupation has to be identified and a suitable mechanism for testing a learner’s competence in the same has to be instituted”*

*An interviewee*

### **3.9 Conclusions, major issues and learning points**

While the international agenda on core skills has widened substantially and the importance of these skills in VET systems has been publically acknowledged by both Government and Industry, in India the matter is still under a process of development. The interviews with stakeholders revealed a few issues surrounding the conceptualization and implementation of a core skills agenda in India.

Stakeholders largely feel that the policies on skills development are silent on the development of core skills. The closest that existing policies get to addressing the issue are references to ‘employability’ skills. The terms tend to be used interchangeably, but do not necessarily mean the same thing. Core skills are thought to be for learners who are already literate. They include aspects such as the ability to read, write and compute competently, think creatively, solve problems independently, lead effectively, and follow supervision and the major assumption is that these skills are addressed during a learner’s primary education and no further action is required to inculcate them when learners evolve to higher education or VET. The evidence suggests that in India, the belief is that employability skills are sector specific and are imparted with the intention that learners will proceed to work in the same

sector for the course of their careers. As a result, the policy thrust is to make young people employable by imparting a specific set of skills required by one particular industry so that these people are able to find employment within that sector. In a sense of scale, a similar policy initiative was the push for CCE by the MHRD which introduced a new grading system for schools, and a similar push to include the core skills agenda should be undertaken. As part of this process, international practices in conceptualizing and implementing core skills should be researched and suitably modified for application in India. Therefore a suitable plan should be executed phase-wise in which the first phase would be to encourage the development of reading and writing ability among learners and the second would focus on core skills to allow progress within one's workplace regardless of the sector of employment.

The importance of curriculum change in meeting the requirements of the skills development paradigm cannot be undermined. There is need to have a well-articulated curricula in terms of skills and competencies. Curriculum issues today involve not so much how to impart vocational skills to secondary graduates as how to integrate vocational and general curriculum. Nevertheless, the secondary school curriculum is becoming more diversified and in a way also more eclectic, adding new source of valid curriculum knowledge that are not discipline based. Moreover, the National Curriculum Framework (NCF, 2005) focuses on restoring dignity of labour and repositioning the fundamental elements of basic education. In this model, work at school may be used pedagogically to link the context of the learner to the subject matter at hand. In the process it would become the medium of skill formation. From a pedagogical point of view, there is a substantial need to transform the way training is delivered when talking about delivering core skills alongside traditional subjects. However integration in delivery and pedagogical challenges of incorporating core skills continues to remain a challenge especially in the light of shifting curriculum structures.

VET in India is witnessing transformation in terms of increased participation, expansion, managing curriculum and pedagogical shift and demand for quality teachers. The re-conceptualization VET in the National Curriculum Framework (2005), restructuring Centrally Sponsored Scheme of Vocational Education (1988) during IX and XII plans and introduction of NVEQF as major milestones have substantially brought paradigm shift in the policy pronouncements, curriculum and management of teachers in the scheme of VET. It is widely acknowledged that the quality of vocational teachers and trainers greatly influences the effectiveness of VET. However, over the decades, management of teachers has remained critical for effective implementation of VET. All policy and planning statements in vocational education have raised concerns about teacher management issues. In India, there have been attempts to re-organize teacher education curriculum to ensure that teachers are able to meet the demands of the changed school education paradigms. Recently, the National Curriculum Framework for Teacher Education has progressed to a carefully crafted curriculum design that draws upon theoretical and empirical knowledge as well as experiential knowledge. For core skills to be developed amongst learners it is essential that teachers are trained continuously to meet the skills development challenge.

### **3.9.1 Major issues**

The stakeholder interviews also revealed certain issues which affect the delivery of core skill training in India. These issues are presented as follows:

- i. It is felt that the curricula present so far, in both mainstream and vocational education, does not put any emphasis on core skills and any effort to integrate core skill training have largely been informal processes and not on a wide scale. The recognition of core skills as vital to the educational development agenda is necessary and has to be pushed by industry partners.
- ii. The current focus on imparting technical knowledge rather than practical learning will have to be re-visited and suitably modified to allow learners to gain skills that can be used in a variety of sectors. It is felt that 'employability skills' are most often learnt on the job once a learner has completed his/her education and has entered the job market. This has been acknowledged

as a matter of concern and steps should be taken to develop core skills while learners are still part of the education system.

- iii. In technical trades, pathways to further positions are not defined and it is felt that workers will do the same job over the course of their careers and will not need transferrable skills. This attitude is reflective of the overall attitude towards learners in VET systems and as a result even if core skills are being addressed, it is often for learners within traditional education systems.
- iv. No definite core skill set has yet been identified and though learners are trained in specific employability skills, a complete set of these skills is never imparted to learners either through standalone systems or through embedded systems. A definitive framework is required to identify some transferrable skills across sectors and it is felt that a consultative approach by all the SSCs, facilitated by the NSDC would be the best way forward.
- v. Core skills training must also become a mandatory part of the B.Ed and D.Ed curriculum for teachers. Teachers entering the education system must be suitably tested on their ability to then impart these learnings to students.

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## Jamaica

### An analysis of the efforts to integrate core skills for employability in technical and vocational education and training (TVET)

Author: Paul Payne

#### 4.1 Introduction: Jamaica and its TVET system

The independent nation of Jamaica is the largest English speaking island in the Caribbean and holds the added distinction of having the largest population of the Commonwealth Caribbean. As an island rich in natural resources, its economy is based on exploitation of these natural resources by a labour force of 1.255 million.<sup>30</sup> The three key economic sectors accessing Jamaica's labour force are:

- i. Services, consisting mainly of tourism and telecommunications related services (64 per cent),
- ii. Industry consisting of mining (bauxite/alumina), agro processing, light manufacturing (cement, metal, paper and chemical products (19 per cent);
- iii. Agriculture (17 per cent).<sup>31</sup>

In terms of contributions to GDP, in 2012 services contributed 64.5 per cent and industry and agriculture contributed 19.1 per cent and 6.4 per cent respectively. Jamaica's export was estimated in 2012 to be about JMD 1.747 billion and consisted of alumina, bauxite, sugar, bananas, rum, coffee, yams, beverages, chemicals, wearing apparel, and mineral fuels. To maintain and even improve its competitive advantage of these services and exports on the global market, Jamaica is required to maintain or even improve the labour force of these sectors.

Evidently, the TVET system would focus on meeting the labour force demands of these productive sectors of the Jamaican economy. The TVET system would be obligated to chart its training programmes to meet the needs these key sectors of the economy. Training for the services' sector, as the lead sector in the Jamaican economy, would obviously require a greater focus on the core employability skills because of the more compelling need for these competencies to be demonstrated in these service industries.

Jamaica has 2 national universities and over 15 community colleges, but the TVET system for the past 30 years, has been concentrated in the HEART Trust, National Training Agency (NTA). The HEART Trust NTA is responsible for the management, coordination and delivery of TVET in Jamaica. The system consists of a TVET Instructor Training Centre, a Vocational Development Training Institute (VDTI), 29 vocational training centres and 6 HEART vocational training institutions. Several private training providers in Jamaica deliver vocational training courses and programmes coordinated by HEART NTA. The goal of the institution demonstrates its commitment to TVET as reflected in its vision statement, "***The creation of a Jamaican workforce trained and certified to international standards, stimulating employment-creating investments, contributing to the improved productivity, competitiveness and prosperity of individuals, enterprises and the nation***". The focus of the institutions work is summarized as follows:

- i. Facilitate the delivery of higher level and improved quality TVET programmes.
- ii. Provide relevant industry-based experience through a productive enterprise environment.
- iii. Foster the development and growth of micro, small and medium-sized enterprises through the 'incubator experience'.<sup>32</sup>

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<sup>30</sup> <https://www.cia.gov/library/publications/the-world-factbook/geos/jm.html>

<sup>31</sup> <http://www.infoplease.com/country/jamaica.html?pageno=4>

<sup>32</sup> <http://www.worldskillsjamaica.org>

The evolution of the HEART Trust as the ‘Hub’ of the TVET system in Jamaica was influenced by developments in TVET at the Caribbean Regional level, the Caribbean Community (CARICOM)<sup>33</sup>. During the period from 1988 to 1991, the Heads of Government of CARICOM sought to improve the regions TVET system. In 1990, a “*Regional Strategy for Technical and Vocational Education Training*” was developed as a result of their assessment of the system (CARICOM, 1990). This strategy was to serve as the blueprint for the harmonization of TVET in the region through the implementation of some 11 well-defined strategies in each member State. Jamaica became the first member State to adopt the strategy, so that in 1991, in keeping with the second strategy, entitled “A National Training System,” the HEART Trust became the HEART Trust NTA.

The National Programmes Division of the HEART Trust NTA facilitates training delivery through five regions, which consist of Institution Based Training, Enterprise Based Training, Community Based Training and the Regional Programme Services. The regions are:

- i. South East 1 - HEART College of Beauty Services; HEART College of Creative Industries, HEART College of Business Services; Luidas Vale Learning Resource Centre and Above Rocks Learning Resource Centre.
- ii. South East 2 - HEART College of Construction Services; South Eastern TVET Institute; HEART College of Engineering Services; Paul Bogle Learning Resource Centre, and LEAP Learning Resource Centre.
- iii. South West – HEART College of Agriculture and Ecological Sciences; HEART Caribbean Industrial College; South West TVET Institute, and Old Harbour Learning Centre
- iv. North East - HEART College of Hospitality; Northern TVET Institute of Tourism and Related Services; North East TVET Institute; and
- v. North West - Western TVET Institute of Tourism & Related Services; HEART College of Tourism & Recreation; TVET Institute of Automotive Engineering; HEART College of Innovation and Technology, and Granville Learning Resource Centre.

Enrolment in HEART Trust NTA surpassed the annual target by 3 per cent resulting in 86,402 individuals being trained in 2010-2011. The NCTVET achieved 92 per cent of its annual target issuing a total of 25,686 NVQ-J certificates while 1,476 individuals were certified after completing training at HEART Trust NTA Caribbean Institute of Technology (CIT), and the VTDI. (HEART Trust NTA Annual Report 2010-11, <http://www.heart-nta.org/About/Governance/Annual-Reports>).

## 4.2 Overview and conceptualization of core skills in TVET

The challenge for the TVET system in the region including Jamaica, as identified in the 1990 Regional Strategy for TVET was: “The need to establish a standardized process of translating the traditional educational output of ‘knowledge, skills and attitudes’ into standardized competencies.”

In 1997, a special session of CARICOM Heads of Government meeting on Education and Human Resource Development; the Standing Committee of Ministers of Education approved a document entitled, “Creative and Productive Citizens for the Twenty-First Century”. That document identified “the ideal Caribbean person” meaning that the Caribbean TVET system must develop not only the technical skills, but in combination with the core ‘educational’ competencies

This evolving competency-based education and training (CBET) model for the training and certification of the workforce by the HEART Trust NTA, was influenced by the collaboration with training organizations and agencies in the United Kingdom and Australia in particular. This led to the adoption and adaption by the HEART Trust of what was lately recognized by Australia’s Career

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<sup>33</sup> CARICOM, the Caribbean Community consists of 15 member States, Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago.

Information and Exploration Service,<sup>34</sup> as, “Core Skills for Employment.” The terms ‘critical employability skills’, ‘core skills’, ‘key employability skills’, or simply ‘Employability Skills’ refer to the same or similar collection of competencies that, in addition to the technical skills, contribute to the development of a competitive worker.

The HEART Trust NTA adapted a list of seven such competencies, which parallel those from Australia and were validated locally. These include:

- i. Collect, analyse and organize information
- ii. Communicate ideas and information
- iii. Plan and organize activities
- iv. Work with others and in a team
- v. Use mathematical ideas and techniques
- vi. Solve problems
- vii. Use technology
- viii. The Ministry of Education used the following core skills to evaluate the performance of students on the Work Experience Programme:
  - ix. Oral communication skills
  - x. Written communication skills
  - xi. Co-operation
  - xii. Adaptability
  - xiii. Self-confidence
  - xiv. Self-esteem
  - xv. Courtesy
  - xvi. Integrity/honesty
  - xvii. Poise
  - xviii. Grooming and personal hygiene
  - xix. Attendance
  - xx. Punctuality
  - xxi. Reliability
  - xxii. Initiative
  - xxiii. Problem solving skills
  - xxiv. Ability to follow instructions/directions (MoE, not dated)

It is evident that throughout the TVET system of Jamaica there is a clear understanding of the importance of these skills in the development of the workforce as these core skills are embedded in all programmes curricula.

### **4.3 Stakeholder involvement in the adaptation and identification of critical employability skills**

The Occupational Competency Standards remain the basis for curriculum development and training delivery in Jamaica’s TVET system. “The introduction of the Caribbean Vocational Qualification (CVQ) as the regional process of certifying vocational training is based on the assessment of the vocational competencies derived from the occupational standards modelled from the Jamaica TVET System” (Vargas, 2004).

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<sup>34</sup> <http://www.myfuture.edu.au/en.aspx>



Occupational Competency Standards are developed, reviewed, adopted or adapted by a group of relevant TVET stakeholders – Industry Lead Body ((ILB). This is an organization responsible for development, maintenance and review of the national standards of competence that should be attained by those working in occupations within the sectors of industry or commerce for which the ILB has responsibility. Membership of ILBs is representative of government, employers, employees, professional bodies and education (CANTA, 2009, p24).

This standards development process allows for the input of these stakeholders on all the relevant competencies including those identified as the ‘Core Skills for Employment’. Additionally, feedback from employers makes a significant contribution in determining the relevant ‘employability skills’ and the level at which these skills are required in the specific occupation. Since these ‘skills’ are generic to all occupations, with varying degrees of relevance, HEART Trust NTA was able to consolidate all the related elements of the Core Skills for Employment into one document entitled: “*Standards for Critical Employability Skill Competencies*” (NCTVET, 2004). This document identified the seven ‘critical employability skills’ (noted previously) and then provides the detailed ‘performance indicators’ for each skill. These indicators are then grouped into ‘levels’ in accordance with the following criteria:

**Table 4.1: Performance indicators by levels**

Level 1	Level 2	Level 3
Perform	Administer and manage	Design and evaluate
Carries out established processes	Manages process	Establishes principles and procedures
Makes judgement of quality using given criteria	Selects the criteria for the evaluation process	Evaluates and reshapes process
		Establishes criteria for evaluation (ibid)

A further explanation of the ‘Levels’ is given in the Critical Employability Skills. These three performance levels denote degrees of complexity and responsibility in performing technical competencies at the standard specified. They are not NVQ levels. They relate to the seven generic competencies that underpin effective workplace performance.” Thus, stakeholder input, at all stages of standards development and revision, remains a critical element in the TVET system of Jamaica. The NCTVET “*Standards for Critical Employability Skill Competencies*” is the central document which guides the selection and inclusion of relevant core skills for employability; and the revision of existing standards and the development of new standards.

#### 4.4 Critical employability skills in curriculum and training delivery

The integration of these ‘Core Skills for Employment’ in TVET and their integrated assessment are evident in two significant areas of the Jamaican TVET system. These are:

- i. Curriculum development, delivery and assessment
- ii. Pre-employment preparation, on-the-job training

The curriculum development process begins with the Occupational Competency Standards. The NCTVET, provides the following description of these Standards: “Competency standards are industry-determined specifications of performance, which describe the skills, knowledge and attitudes required by a worker in the performance of a particular role in the workplace. A competency standard



is made up of a unit title, elements, performance criteria, range of statements containing evidence guide and key competencies”.<sup>35</sup> It further identifies the following function of the standards:

- i. Building blocks for all activities in a competency-based training and certification system.
- ii. Used as the basis for assessment, certification, articulation and accreditation.
- iii. Clustered to form NVQ-J.
- iv. Used to establish the basic linkage between the workplace and the training system.
- v. Used for identifying training needs and conducting labour market analyses.

Seen as the most effective way of closing the skills gap, developing the workforce of the future and promoting lifelong learning as a result of the use of occupational standards.<sup>36</sup>

The Occupational Standards provide guidance in the selection of lesson content and exercises that facilitate the acquisition of the relevant competencies including the key competencies for employment. In some occupations, specific employability skills are identified as separate competency standards while in others they are integrated into the overall competencies. However, the critical element of the CBET process, which is performance based, is that of assessment. It is also noted that ‘assessment should include the critical employability skills that are reflected in the unit standards.’ To guide this important process the NCTVET has produced a document entitled, “*National Qualifications Framework – Assessment Guidelines*”. This document provides detailed guidelines for assessment in CBET including assessment of the employability competencies. More importantly, it facilitates a high degree of consistency in the assessment process in TVET. The document makes the following argument with specific reference to the assessment of the employability skills:

“In order for assessment to be valid and reliable, a pilot test or simulation must closely represent what actually occurs in the workplace, and should seek to replicate an actual work setting. It is critical that the designer of the simulation is thoroughly familiar with the requirements of the competency and is experienced in the current circumstances of the work” (NCTVET, 2004).

The following description of the Work Experience activity, as a significant element of the assessment process, confirms the value that the TVET system of Jamaica places on these worker enhancement skills:

Work experience is an integral part of our training programmes and is critical to ensuring a seamless transition into the world of work. Accordingly, each trainee is required to complete a four-week (160-hour) attachment within a workplace setting while pursuing his/her programme of study. Through this mechanism, trainees are exposed to industry best practices, gain useful insight into general workplace requirements and employer expectations of employees, as well as develop an appreciation and understanding of the requisites of a professional workforce. The employability skills are therefore an integral element in the curriculum, the delivery and assessment, and form a key component of the Work Experience activity of the TVET system in Jamaica. This was the opinion of those interviewed and evidence from the documents reviewed.

#### **4.5 Assessment and reporting arrangements**

In Jamaica, the NCTVET has the responsibility for TVET assessment and certification. It describes its role as having “overall responsibility for developing competency standards, assessment and qualification guidelines, certifying assessors, accrediting training organizations and issuing the NVQ-J to individuals who have demonstrated the required competencies in the various occupational areas.”<sup>37</sup> The NCTVET further describes its assessment and reporting process, which outlines the necessary documentary evidence generated in assessment for certification.

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<sup>35</sup> [http://www.nqrjamaica.org/nationalregister/generalinfo/competency\\_standards.aspx](http://www.nqrjamaica.org/nationalregister/generalinfo/competency_standards.aspx)

<sup>36</sup> Ibid.

<sup>37</sup> [http://www.nqrjamaica.org/nationalregister/generalinfo/aboutus\\_nqr.aspx](http://www.nqrjamaica.org/nationalregister/generalinfo/aboutus_nqr.aspx)

The development of assessment instruments is coordinated by the NCTVET to assist assessors in gathering evidence for assessing competence. These approved assessment instruments are made available on the National Qualifications Register ([www.nqrjamaica.org](http://www.nqrjamaica.org)). Where access to the National Qualification Resources is unavailable, however, persons may make requests for the required assessment instruments through the Standards and Assessment Unit of the NCTVET. For the most part, assessment of competency in employability skills is part of the overall assessment in a specific occupational area and these are well documented in the NCTVET critical employability skills. However, in the national consultations, there was no evidence of records or statistics on performance with respect to specific employability skills.

#### **4.6 Professional development of instructors, trainers and institution managers**

The VTDI, the arm of the HEART Trust that has the responsibility for TVET instructor training, among other things, has been described as “the tertiary arm of the agency.”

Today the VTDI offers the following TVET related programmes:

- i. TVET Instructor Diploma
- ii. Post Graduate Diploma in Education and Training
- iii. Bachelor of Science Degree in Career Development
- iv. Certificate in Assessor Training
- v. Certificate in Train the Trainer

The interview with VTDI revealed that the Critical Employability Skills as outlined in the “Standards for Critical Employability Skill Competencies”, are integral to all instructor-training programmes and are integrated into the assessment of not only the trainees but also in their assessment. This model creates a climate that is conducive to the creating a positive mind-set in trainee instructors as they are taught how to deliver and access these employability skills. The use of the Facilitation Plan or Lesson Plan template allows the trainee instructor to identify the employability skill(s) that would be infused in that particular lesson. This template is available online to TVET instructors and trainee instructors. Additionally, the VTDI has developed training videos to facilitate the training and demonstration of these employability skills. Career Development Officers are assigned to all training centres to assist in delivering specific training in employability skills as outlined in the NCTVET Critical Employability Skills. Annual retreats for management personnel provide for the professional input in the review of these employability skills. Their importance, as well as new and innovative ways of ensuring their delivery as part of the TVET curriculum, is also considered.

#### **4.7 Core skills awareness raising/social marketing**

HEART Trust NTA utilizes a Career Development and Employment Facilitation Service, a web based tool used by the trainees, promotes an awareness of the importance of the employability skills, which are essential for the job interview. The National Qualifications Register creates an awareness of the importance of the employability skills in the training assessment and certification processes in TVET, as they are listed among the competency standards for assessment and certification; and NCTVET promotes the use of this site nationally. Existing and prospective trainees are registered in the database and have access to the competency standards. Uncertified workers seeking certification are encouraged to register thereby beginning the process of Prior Learning Assessment that would allow them to become certified (HEART Trust NTA, 2004).

#### **4.8 Monitoring and evaluation**

As is the case with the process of Standards development, review and updating, driven by changes in the work environment, one anticipated that it would also be similar in the case of the employability skills. The consultations however, did not reveal any such a strategy. While it was evident that improvements in the identification and inclusion of the core skills in the TVET curricula and

occupational standards, there was no evidence of a cycle of effectiveness of the interventions in the quality of graduates.

## **4.9 Conclusion, major issues and learning points**

### **4.9.1 Awareness of commitment to integration**

The consultations with the various units of the HEART Trust and the TVET Unit of the Ministry of Education revealed that there was a genuine awareness of the values of the employability skills in TVET and a serious commitment to ensuring their integration into the TVET curriculum. In concluding the consultations with the Standards and Examination Units of the NCTVET, there was consensus that an eighth critical employability skill, entitled “Ethics and values,” which has been long recognized at the institution, will be proposed for addition to the current list in the near future.

### **4.9.2 Identifiable challenge**

HEART Trust NTA, as the National Training Agency with the mandate of ‘coordinating and managing’ TVET in Jamaica, has one identifiable challenge in meeting this mandate. While the management of the HEART Trust Fund allows HEART to monitor most training providers, there are some private TVET providers whose training and certification processes are not aligned to the competency standards.

This means that it is not possible to ascertain how and to what extent are the ‘Critical Employability Skills’ incorporated into the training of these private TVET providers. The Executive Director of HEART Trust NTA indicated that this anomaly is being addressed in the agency’s Strategic Plan (2013-2016).

### **4.9.3 Extension of career advancement initiative**

There are also plans to extend the HEART Trust Career Advancement initiative, with the focus on the provision of employability skills into a National Career Programme, which would provide career-planning support into the entire education system of Jamaica. This is significant, since the early part of the education system provides the foundation for the TVET system. There are also plans to launch an online “Training Management System” which would provide online access to training materials including the teaching/learning resources that have been and are being developed in support of employability skills. Additionally, the new Strategic Plan proposes to re-emphasize the foundation core/employability skills of communication and numeracy so as to ensure the upward mobility of the trainees in line with the new Regional Qualifications Framework.

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## Malawi

### Core skills

Author : Jones Chafa

#### Executive summary

This case study analyses efforts being made in Malawi to implement core skills for employability in TVET. The study methodology included literature review, analysis of secondary data and interviews with key stakeholders. The study approach was guided by the lifecycle model of integration of core skills for employability in TVET which involves examining the process of identification of core skills and stakeholder involvement; mapping, revision and development of curriculum and resources, as well as assessment and reporting practices; professional development of teachers and trainers; awareness raising/social marketing; and monitoring and evaluation.

The study has revealed that core skills in TVET in Malawi are known as fundamental skills. The process of identifying them was consultative and happened as part of the TVET reform in the 1990s. As noted by the Jimat study (Jimat, 2009) most of students demonstrated limited ability in the core subjects of numeracy, communication, analysis and entrepreneurship.

Five core skills were identified which include: communication; entrepreneurial; numeracy; sciences; and occupational health and safety. A mapping of the existing curriculum, resources, competencies, delivery, assessment and reporting practices was undertaken. This led to the development of standards, the TVET Qualifications Framework (TQF), for all occupations, including the fundamental/core skills. The study has revealed that despite wide consultations, not all stakeholders were adequately involved in identifying these skills. The professional development of teachers and trainers was wanting. There was little core skills awareness raising/social marketing efforts. The TVET assessment framework attaches high importance to core/fundamental skills. Learners who fail to demonstrate mastery of the core/fundamental skills do not proceed to the next higher accreditation level. This requirement makes some learners to take close to six years to complete a 4-year course. The challenge of trainees taking too long to complete their courses partly is attributed to challenges to do with inadequate professional development of teachers and trainers. Some of the trainers/teachers interviewed were unable to correctly identify and describe what the core/fundamental skills are. The study has also revealed that there are no well-established monitoring and evaluation mechanisms specific for core/fundamental skills in training institutions and especially in the industry.

#### 5.1 Introduction

This study contributes to the work of the ILO on profiling core skills in TVET programmes. The study's key aims were:

- i. To review and analyse efforts to integrate core skills for employability in the VET system in Malawi; and
- ii. To use, validate and further develop, the policy cycle model of the integration of core skills for employability in TVET.

#### 5.2 Methodology

The study methodology included literature review, analysis of secondary data and interviews with key stakeholders involved in the development and implementation of core skills in Malawi. This also involved consolidation of existing literature on policy, curriculum, delivery and assessment. A 'purposeful' sample of relevant institutions was selected. The selection and number was based on the terms of reference of the study and was guided by the following thematic areas: policy, curriculum, delivery, assessment as well as employers and civil society representation. Both public and private institutions were involved. Two questionnaires were prepared: one for public (government) policy

makers and implementers; the other for employers (private companies). Questionnaires were sent to respondents after telephonic discussions about the case study. Follow up visits were made to the respondents to seek clarification and to probe more information.

The literature review involved collection of documents from the Technical, Entrepreneurial and Vocational, Education and Training Authority (TEVETA), Ministry of Labour, Ministry of Education, Malawi National Commission for UNESCO, TEVET service centres (Lilongwe) and Technical Colleges (Lilongwe, Namitete, Salima, Soche, and SOS Vocational Training Centre).

Challenges observed with the administration of the questionnaires in public institutions were largely to do with government bureaucracy. Some respondents had to seek clearance from authorities which delayed the responses and affected the schedule of the study. In the private sector, most of the respondents indicated that they did not have adequate time to devote to the questionnaire. This too affected the study schedule. The study sampled 14 respondents. Out of these, two institutions did not respond despite several reminders. As colleges were in recession, the sample did not include trainees/students. For ease of administration of the study, most of the respondents were from the central administrative region of Malawi.

### **5.3 Socio-economic context of Malawi**

Malawi is grouped amongst the least developed economies in the world. Poverty level is very high, 50.7 per cent, with a quarter of the population (25.4 per cent) still extremely poor (NSO, 2011). The country has an economy that is highly dependent on the agricultural sector which employs about three-quarters of Malawi's active employable age group. Its industrial base is narrow with weak structures and base. The services sector contributes 33 per cent to GDP and is largely linked to the agriculture sector accounting for 28 per cent of the GDP. The mining sector is still small contributing 2 per cent of GDP, though there is increased activity with the opening of a uranium mine as well as prospects of oil drilling on Lake Malawi. The manufacturing industry contributes 10 per cent of GDP.

In the last two years, 2010 to 2012, Malawi's economic growth slowed down from a peak of 9.7 per cent in 2008 to 1.8 per cent in 2012 (Reserve Bank of Malawi, 2013) on account of foreign exchange and fuel shortages brought about by challenges associated with balance of payments exacerbated by the withholding of budgetary support by Malawi's key development partners in the 2010/2011 fiscal year. The economy was projected to grow at 6.1 per cent in 2014 (Reserve Bank of Malawi, 2013). The projected growth was based on expected recovery of the sectors in the economy as a result of fiscal and monetary policy interventions, and robust performance in agriculture, mining, construction, manufacturing and other sectors.

### **5.4 Labour market in Malawi**

The formal sector plays a moderate role in terms of employment in Malawi and is dominated by the public sector which employs close to half of the formal sector employees. The 2007 Welfare Monitoring Survey reports unemployment rate of 3.1 per cent (3.9 for males and 2.4 for females). These rates, however, do not follow the conventional ILO definition of unemployment which considers those with employable skills and seeking employment. On the basis of this 'distorted' definition of unemployment, the urban unemployment among 15-24 year olds has been considered to be rising from 1 per cent in 1998 to 9.4 per cent in 2007 owing largely to firm downsizing, public sector restructuring and rural-urban migration estimated at 6.3 per cent in 2008. It is claimed in this report that the reported unemployment rates are 'distorted' and likely to be an underestimation because of the way employment status is defined in national statistics bulletins which includes wage and salaried workers, the self-employed and unpaid family workers (NSO, 2011). About three-quarters of the entire labour force in Malawi works as self-employed smallholder farmers who are usually active in their gardens during the farming period which covers slightly above half of the year. For the rest of the year, most of these self-employed smallholder farmers idle their time away. Statistics on employment rates by sector indicate that the agricultural sector (that includes forestry and fisheries) employs 77 per cent of the labour force, while manufacturing employs only 2 per cent.



## 5.5 The TVET system in Malawi

Malawi's formal TEVT system dates from 1956 with seven public technical colleges established in the 1960's. Four of the public technical colleges are government-owned while the other three are grant-aided church owned. The development of the TEVT system between the 1960s and 1990s was, however slow. The sector was beset by several challenges including dwindling skills due to eroding training standards, lack of teaching and learning materials, poor and outdated technology due to old training equipment, lack of qualified technical teachers, low participation of the private sector, inadequate funding and financing. These challenges were compounded by negative attitudes accorded to TVET sector by the general public.

Through the enactment of the TEVT Act No.6 of 1999 the Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA) was established as an autonomous and independent facilitator, promoter and regulator of TEVT system and was mandated to develop an integrated demand-driven system providing skills in both formal and informal sectors.

The TEVT system has three tiers. At policy level, the holder of TEVT policy is the Ministry of Labour, while TEVETA has an oversight regulatory function. TEVETA also provides programme and student funding and is responsible for quality assurance. At the training level, seven public technical colleges provide a four year Apprenticeship Training Programme. There are also several private training providers delivering formal and non-formal training. A large number of individuals are enrolled in informal apprenticeship which includes trainings conducted by master craftsmen. The TEVT reform brought in a new assessment and certification system through the CBET approach. Under CBET, trainees are assessed and certified based on the TQF. The CBET certificates are recognized in the Southern African Development Community (SADC) region through a 1997 SADC Protocol on Education and Training, which is aimed at promoting labour mobility. At employer level, TEVETA works together with employers in providing company-based training aimed at promoting and upgrading skills of employees to respond to the needs at the work place (TEVETA, 2009).

### 5.5.1 Enrolment in technical colleges

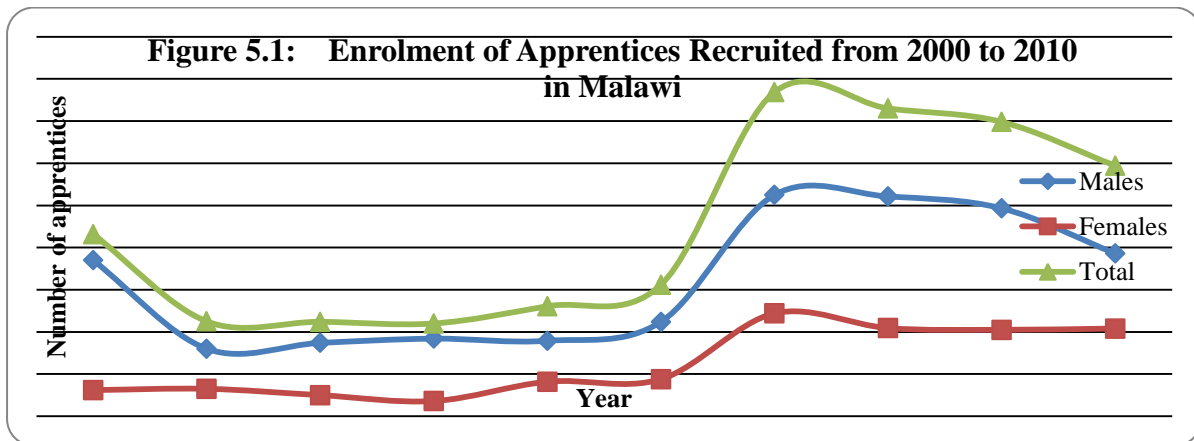
Total TEVT enrolment is not precisely known due to poor data management systems in public colleges and poor monitoring of private providers. Public institutions enroll two types of students: the regular students who are apprentices and financially supported by TEVETA, and the parallel students who pay for themselves. The number of apprentices recruited increased from 200 in 2003 to 770 in 2006. However, the number dropped to 600 in 2009. The 600 apprentices were against over 10,000 applications received by TEVETA in 2009. This represents a minor 35 per 100,000 inhabitants which is substantially lower than other SADC countries with Lesotho at 110, Mozambique 130, Botswana 1228 and Mauritius 1561 (World Bank, 2010; UNESCO, 2010). The fall in enrolment after 2006-07 is partly attributed to space constraints arising from the requirements of the CBET approach. Under CBET, trainees do not proceed to the next level before being certified as competent. This means trainees stay at the same levels longer while trying to pass the required competency modules. Other reasons include limitations in availability of teachers and instructors, and limitations in apprenticeship places provided by the industry (MOEST and MNATCOM, 2009, World Bank, 2010). The enrolment of female apprentices has remained far below their male counterparts, i.e. 200 female apprentices compared to 400 male apprentices in 2009 (see Figure 5.1).

Colleges tend to under report the number of students enrolled in parallel courses (World Bank, 2010).

According to 2009 education statistics, the dropout rate of enrolled students in technical colleges in both regular and parallel programmes was around 5 per cent. The most common reason for drop out was lack of money for fees followed by securing employment.

According to findings from two tracer studies conducted in 2008: GTZ/World Bank Tracer Study and TEVETA Labour Market Survey (LMS), TEVT completers are in high demand in the labour market in Malawi. Eighty-six per cent of all employed former apprentices interviewed in the TEVETA LMS had found jobs within the first six months, while 64 per cent of the mixed group of TEVT graduates

(i.e. apprentices and others) also found jobs within the same period (Pfeiffer and Chiunda, 2008). Compared to other African countries, Malawi fares extremely well with respect to the employment rate of TEVET completers and leavers. Job insertion of TEVET completers and leavers aged 25-34 was the highest among African countries at 93.9 per cent in 2004. The average for Africa was 76.19 per cent (World Bank, 2010).



Source: TEVETA Annual Report 2009 – 2010.

## 5.6 Overview and conceptualisation of core skills in Malawi

The subject of core skills, in Malawian context, is not only a question about existing job opportunities, but also applies to the question of what skills can make one to be successfully self-employed, especially in the informal sector where the majority of Malawi’s labour force is employed. There is a growing desire amongst TVET graduates to become self-employed owing to the higher income that the self-employed get, which on average is three times what graduates in wage employment get (Jimat, 2009). The literature suggests that the concept of core/key skills is socially constructed (Canning, 2013). Over the years, the meaning and terminology of core/key skills has continually changed, reflecting social, political and economic trends. In most African countries, they are referred to as common skills, employable skills, generic skills (Anarfi and Appiah, 2012). At primary and secondary school level the skills are described as life skills/survival skills, and countries, like Malawi, have developed curricula and are examinable. The emphasis and focus has also changed over the years. In the 1980s, language education was central to any discourse on core skills, while in the 1990s enterprise education became much more prominent. But, both have subsequently been eclipsed by the ‘softer skills’ of teamwork and lifelong learning. Warhurst et al. (2004) note that in many ways the concept of skills has become bigger, broader and much fuzzier around the edges. Just as there is diversity in the terminologies used, there is also diversity in the definitions, scope, delivery, assessment and measurement.

The 2012 Association for Development of Education in Africa (ADEA) Triennial on Education and Training in Africa held in Ouagadougou, Burkina Faso, described three common core skills needed for sustainable development in Africa to include: 1) communication skills and ‘learning to learn’ defined to include literacy, numeracy and cognitive skills; 2) social or citizenship skills (i.e. being able to cooperate with others, and to manage conflicts) and work-related skills that enable one to function in the workplace; 3) Life skills, personal development skills, and being able to contribute to a pan-African identity (Burnett and Jayaram, 2012). Pan-Africanist skills are described as those skills intended to build an African identity through knowledge and understanding of the unity in the historical and cultural diversity of the continent (languages, culture and history), to contribute to shared knowledge, mutual respect and solidarity between different cultural groups with a view to promoting peace and African integration, and to play a part in the African renaissance movement



(Ndoye and Walther, 2011). This description of core skills underscores the desire by African member States to define a set of common skills for an African citizenship that is responsible and active with regard to sustainable development and peace.

The delivery of curriculum on core skills in Africa especially in primary and secondary level as observed in a study by Anarfi and Appiah (2012) is hampered by too much emphasis on passing examinations to progress to the tertiary or postsecondary institutions. Even at TVET level, although the curricula are oriented towards the world of work and emphasis is on the acquisition of employable skills, the sector places more emphasis on the passing of examinations and progression to the next academic level than for students to apply the skills acquired to specific occupations. Another challenge associated with delivery of core skills in Africa is the fact that most TVET programmes are supply-driven. Most TVET programmes are not designed to meet observed or projected labour market demands. The emphasis appears to be on helping the unemployed to find jobs (Maclean et al., 2009). So, some educators believe that academic education, which is theoretical in nature, should be de-emphasized and technical/vocational skills should be emphasized more. This line of thinking is motivated by the need for TVET to help in breaking the cycle of poverty that most learners in Africa are engulfed in. Thus the main issues are ‘poverty’, ‘limited employment’ and ‘the desire to train job creators’. In view of this, TVET curricular of some African countries have emphasized skills in management, entrepreneurial skills and practical skills.

### **5.6.1 Identification of core/fundamental skills in Malawi**

The literature on Malawi (TEVETA, 2008) and responses from the respondents show that the core skills were identified in TVET in Malawi and are described and understood as fundamental skills. They are linked to the CBET TEVET curriculum approach. They are defined as comprising five sets of skills: communication; entrepreneurial; numeracy; sciences; and occupational health and safety.

TEVETA adopted these as key core skills based on concern about trainees’/graduates’ poor performance at the workplace. This was one of the factors that triggered the TVET reform in the late 1990s. The study has revealed that though there is different understanding among the respondents of what fundamental skills are in the Malawian context, the majority of the respondents know what they are. Only 8.3 per cent of the respondents did not give correct answers to the question that demanded them to mention core/fundamental skills.

Those that did not get a correct answer had listed occupations instead of the five fundamental skills as are described in TEVETA manuals. The study examined the assessment, the TQF, how the core/fundamental skills are described. It was observed that the five core/fundamental skills are given various names which makes it difficult for an untrained eye to recognize them.

As can be seen in Table 5.1, ‘entrepreneurship skill’ is shown as ‘managing business function’ and ‘carrying out business research’. ‘communication skills’ is indicated as ‘listening/writing’. This makes it difficult for untrained teachers/trainers to know, identify, teach and assess the core/fundamental skills correctly. This partly explains why some of them were unable to describe the core/fundamental skills.

**Table 5.1: Namitete Technical College, carpentry and joinery 2009 Level 2\***

Operating portable power tools	Constructing angles & shapes
Making flush doors	Transposing formulae
Making panelled & glazed door	Safety @ work & HIV/AIDS
Making a window sash	Listening/ writing
Fixing fixtures & fittings	Constructing plane geometrical shapes
Making a display cabinet	Constructing projection of figures
Making a wardrobe	Carrying out business research
Making a kitchen unit	Managing business function
Making a chest of drawers	Using Applied science
Making upholstered chair & bed	

\* The unshaded columns indicate occupation skills and the grey shaded columns indicate core/fundamental skills.

Source: TEVETA, 2009.

The differences in interpretation amongst training institutions in describing the core skills differ because of a number of factors which include:

- i. Challenges associated with inadequate orientation and training for the trainers. This is linked to the challenge associated with limited reinforcement or follow up by TEVETA on the implementation of the curriculum;
- ii. Inadequate teaching/learning materials in some instances also affected the interpretation amongst the training institutions;
- iii. The multiplicity of different TVET curricula offered in the training institutions (i.e. Malawi Trade Test, Malawi Craft and Advanced Craft, and CBET) might have also affected the interpretation amongst the training institutions.

Because of these issues, there is no common framework for the curriculum.

There are similarities and differences between the core/fundamental skills defined in TVET and the life skills at primary and secondary level. At primary and secondary level, a subject on Life Skills Education was introduced in 2002, originally as a non-examinable subject, but was made a core and examinable subject in 2010.

Based on the definition by the World Health Organization (WHO) of life skills as ‘abilities for adaptive and positive behaviours that enable individuals to effectively deal with demands and challenges of everyday life (WHO, 2003), the main reason for introducing the Life Skills Education in Malawi’s schools was to enable school going youths to acquire knowledge, values, attitudes and skills that would help them avoid contracting sexually transmitted infections, especially HIV/AIDS and cope with challenges of everyday life, i.e. physiological, psychological, social and economical.

Malawi has over a long time been concerned with the relevance of its primary and secondary school curricular as emphasized in its education sector plan documents: the Policy and Investment Framework; National Education Sector Plan and the Education Sector Implementation Plan. In the face of limited formal employment, the majority of people with primary and secondary school level of education find it hard to engage themselves in meaningful economic activity. So when the CBET approach was being hatched it was conceived with the aim of improving employability of the youths (both self- and wage- employed).

## 5.7 Stakeholder involvement

Respondents indicated that the process of identifying and defining core/fundamental skills in Malawi was consultative. The consultations were done through meetings and workshops with experts from industry and relevant key stakeholders including training institutions. However, the level of consultation and participation amongst institutions and individuals varied as some respondents indicated. The consultations which were organized under the TEVET reform process involved stakeholders from the technical colleges, TEVET service centres, TEVETA Secretariat; trade related industry, National Trade Testing, Malawi National Examinations Board, City and Guilds, and education division offices. The stakeholders brainstormed the core skills for the demanded occupations. The process considered the relationship between trade/occupational skills and core/fundamental skills, the relevance to the labour market and the entry levels of the learners. The consultation process culminated into the defined five fundamental skills of: communication; entrepreneurial; numeracy; sciences; and occupational health and safety.

## 5.8 Implementation strategy

The study has established that a strategy to guide the implementation of the core/fundamental skills was clearly outlined and mapping of the existing core/fundamental skills standards was done, that led to the development of training modules. The strategy included sensitization and training of instructors on the delivery of these skills. Using the Kenya and Zimbabwe models, occupation specialists were called in turns for a series of induction on the various aspects of the strategic plan including standards and benchmarking development (particularly for modules). New teaching and learning materials were developed to support delivery of the core/fundamental skills. In addition, modules, training guides, schemes of work and assessment packages were developed and distributed to TEVET providers to assist teachers in the delivery of core/fundamental skills.

Some of the respondents, however, expressed dissatisfaction with the plan in that there were no adequate mitigating measures to curb the challenge of high turnover of trained teachers/instructors. The training institutions were unable to retain such competent trainers against the lure of industry which offered better attractive incentives. The turnover of teachers was made worse because of the fact that Malawi does not have a TVET teacher/instructors training college that would train personnel on a sustainable continuous basis.

## 5.9 Curriculum and training delivery

The study has also established that a mapping of the existing TVET curricula in Malawi was done prior to defining the core/fundamental skills. However, some of the respondents indicated that one of the challenges associated with the mapping exercise was that, in some cases the industry and training institutions delegated members of staff that were not competent enough to give the true picture on the ground. This, in their view, resulted in misrepresentation of their interests. Other respondents also felt that the mapping was not done satisfactorily because, in their opinion, some of the core/fundamental skills were not well matched with the level of the qualification.

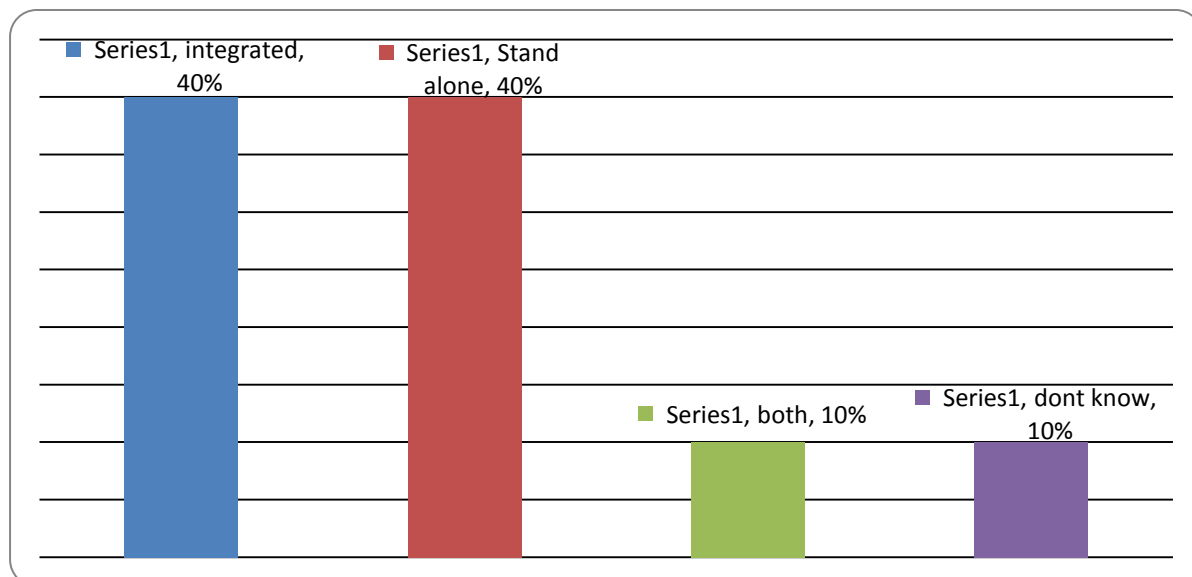
According to respondents' views and evidence from the literature, a hybrid of two models of delivery of core/fundamental skills (i.e. standalone and integrated approaches) obtains in Malawi. In the standalone approach, also known as 'diffusion model', core/fundamental skills are developed and taught as standalone by 'pooling' relevant content from the various occupations/subjects into a module. TEVETA developed standalone modules for the five core/fundamental skills and were designed to be taught as individual modules. Within each module, the core/fundamental skills are aligned alongside occupational skills to levels of the curriculum as defined in the TQF. Each core/fundamental skill is assigned a number of required credits for a learner to be certified as having mastered the skill.

Despite being distinct separate modules, some respondents, especially those from training institutions, regarded the delivery approach of core/fundamental skills as integrated (see Figure 5.2). This observation emanates from the teaching/learning 'practice' experience as the separation between the two models of approach is blurred at curriculum delivery level. In integrated delivery approach, also

known as the ‘infusion model’, the content of core/fundamental skills is taught within other occupations. The core/fundamental skills are integrated in both off- and on-the-job training components of the curriculum. Much emphasis is, however, placed on on-the-job training component. The core/fundamental skills are included on the teaching timetable in all training institutions and in most cases two hours are allocated per week.

In order to ensure quality assurance in the delivery of TEVET programmes it is a legal requirement in Malawi that all providers, public or private, be registered and are supposed to follow the CBET approach/curriculum which includes delivery of the core/fundamental skills. Because of this, as was verified by responses from the respondents, there is no difference between public and private providers in the way core/fundamental skills are understood and delivered. Respondents from both public and private training institutions gave similar responses to the questions that required them to describe the core/fundamental skills. It is however, worth noting that there has not been any detailed comparative evaluation to establish whether these skills are really being offered in the same way in the public and private institutions.

**Figure 5.2: Respondents’ views on delivery strategy of the core/fundamental skills in Malawi**



Some respondents were not satisfied with the way some core/fundamental skills were taught in the training institutions, for example, entrepreneurship. They felt that the entrepreneurship module was not practical enough in nature like other occupational subjects. Further enquiry on this established that a training manual for the entrepreneurship had just been developed in response to training providers’ sentiments. Its development involved teachers/instructors including experts in entrepreneurship from the industry. The module had just been introduced in the technical colleges.

### 5.10 Assessment and reporting arrangements

Just like with conceptualization and delivery, mapping for assessment and reporting arrangements for the core/fundamental skills was done. The results of the mapping process which involved revising and developing assessment tools were submitted to the Technical Qualifications Committee for approval before being delivered to the training providers. The TEVET assessment system in Malawi is based on the principles of CBET. Thus, it is not driven by final examinations. It is a continuous process which involves gathering evidence of performance, knowledge, and values of a learner in relation to competency standards as outlined in the TQF. This system of assessment is applicable to both core/fundamental and occupational skills.

In order to have an effective quality assurance system that assures confidence in assessment decisions, internal and external verification is done in all accredited training institution. It is a process of monitoring assessment practice to ensure that assessment decisions are consistent and accurate. The two processes have to be fulfilled before a record of achievement and a certificate is issued to a candidate. In internal reporting, the achieved learning outcomes are internally verified by training institutions.

In external reporting, the achieved learning outcomes are verified by external evaluators/assessors. A record of achievement for partial completion of a qualification (i.e. at any level) is issued to trainees or employers on request. Until recently, the keeping of records and statistics of learners completing core/fundamental skills units and modules was a big challenge. Students' records are kept by training institutions and TEVETA.

Achievement in core/fundamental skills is reported separately from any other occupations. Core/fundamental skills form part of the credits learners have to attain in order to get a certificate at all levels (i.e. levels 1, 2 and 3). They are rated at 25 per cent of total credits. To be awarded with a full qualification at each level of the TQF an individual is expected to acquire all the prerequisite occupational and core/fundamental standards. The percentage of necessary credits of core/fundamental standards increases progressively from lower to higher levels of qualification.

Similar to the other processes, the challenge that was experienced during the development of the assessment tools was that not many instructors from colleges were involved. Because of inadequate orientation of teachers/instructors, delays in getting results of achievement have been experienced.

According to TEVETA database, 592 students graduated at various levels and in different occupations in 2012 in both public and private training institutions accredited by TEVETA. Out of these, 506 were male and 86 female.

### **5.11 Professional development of teachers, trainers and institution managers**

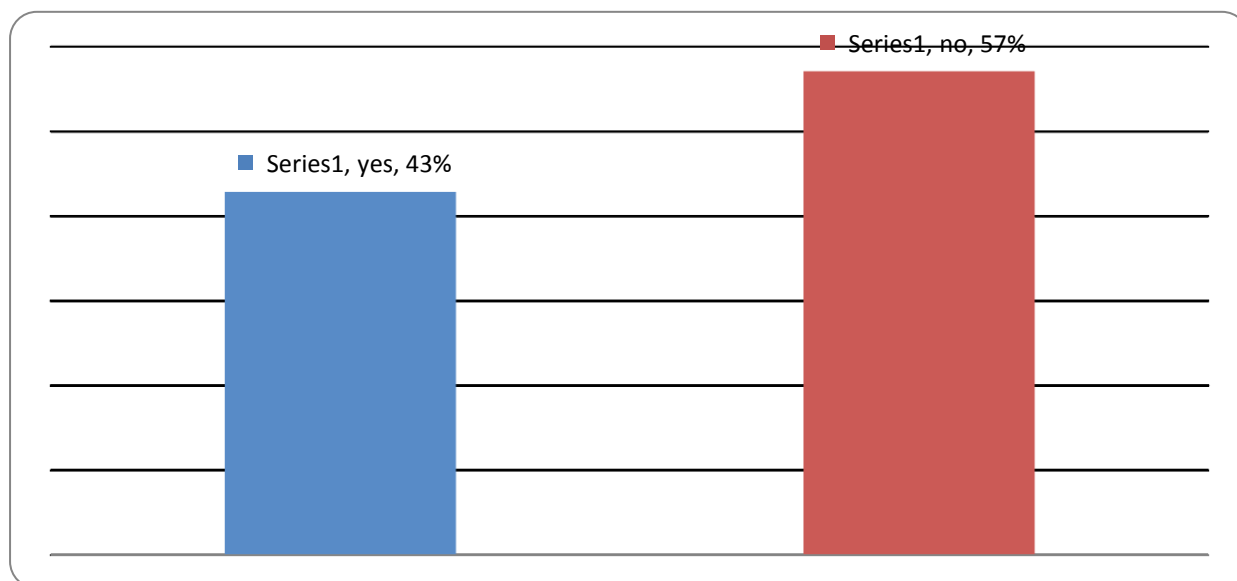
Malawi does not have a college that specifically trains technical teachers. Most teachers join the colleges as teachers with industrial experience. Some of the respondents reported that they had not gone through any pre-service training. In view of this, they are offered pedagogic training on an ad-hoc basis and mostly through workshops. Most respondents from training institutions stated that the form of training that they received was not enough to make them feel confident to handle the core/fundamental skills in the classroom. Tailor-made in-service training sessions were/are organized where teachers are taught how to deliver core skills periodically. Lesson delivery methods form a significant component of the induction or training workshops.

One interviewee from a public technical college lamented about the difficulties he faces when delivering the occupational health and safety module which is considered to be wide in scope as it also covers issues of HIV and AIDS. He considered the induction course he got on how to deliver the module as inadequate, this was compounded by insufficient training materials. One trainer had taken the initiative to download materials from the internet. However, access to internet by all teachers/instructors is hampered by limited ICT resources at the training institutions.

### **5.12 Core skills awareness raising/social marketing**

TEVETA organized several stakeholder meetings, especially for line managers from big and medium scale enterprises. These were also involved in the standards and benchmarking development. When a question was asked on whether awareness raising/social marketing for the core/fundamental skills was carried out, slightly above half of the respondents (57 per cent) (see Figure 5.3 reported that social marketing and awareness raising efforts were undertaken. The low percentage implies that not much awareness was conducted. Parents and students were not targeted in the social marketing and awareness raising efforts.

**Figure 5.3: Core skills awareness and social marketing**



### 5.13 Monitoring and evaluation

Monitoring and evaluation tools for all occupations including core/fundamental skills were developed. A number of workshops were organized to develop the tools using experts from the industry and training institutions. TVET institution managers, i.e. principals and deputy principals were involved in training workshops on delivery, supervision, monitoring and evaluation. However, as some of the respondents indicated, the training workshops did not adequately address the question of monitoring and evaluation specific to the core/fundamental skills, especially in the industry. All respondents indicated that so far there had been no monitoring and evaluation of the national implementation strategy. General inspection and supervision on the delivery of TVET had been done. However, this did not specifically focus on core/fundamental skills. Hence there were no reports specific to core/fundamental skills. The challenges of monitoring and evaluation are compounded by poor data management systems in public colleges and poor monitoring of private TVET providers.

### 5.14 Conclusion, major issues and learning points

This case study has revealed that Malawi identifies and defines core skills as fundamental skills and they are distinctively defined in five areas, i.e. communication; entrepreneurial; numeracy; sciences; and occupational health and safety. Malawi gives a lot of prominence to the core/fundamental skills in the TEVET curriculum. No candidate can be awarded a certificate without passing them.

The core/fundamental skills are delivered as standalone modules, although some training institutions deliver them as integrated modules. Challenges to do with the delivery of core/fundamental skills out of unclear understanding of the concept amongst stakeholders, which in turn is a result of challenges to do with conceptualization, planning, training, assessment, monitoring and evaluation of the core/fundamental skills.

At each stage of the lifecycle of implementation of the core/fundamental skills, there were success stories that contributed to successful implementation. There were also challenges that negatively affected implementation.

The following are major issues that need to be looked at if improvements are to be made in core/fundamental skills in Malawi:

- i. There is need to continue re-examining the definition of core/fundamental skills within Malawi's context in view of the changes taking place in the workplace and globally. For instance, information technology is becoming a dominating factor in TVET training and in

industry. There is, therefore a need to have in place flexible responsive strategic plans that respond to new skills demand on the market.

- ii. The study has revealed that there is a discord between policy intentions as stipulated in policy and strategic plan documents, and training materials, on the one hand, and the delivery practice and achievements on the other. Public documents from TEVETA and the Ministry of Labour clearly describe what the core/fundamental skills in Malawi's context are, and they give a detailed account of the consultative processes that were followed. However, the picture is not the same on the ground, i.e. in the training institutions and industry where application of the core/fundamental skills matters most. Similarly, the absence of monitoring and evaluation reports of the implementation plan, and on the delivery of core/fundamental skills as well as the absence of a reliable database, all point to the weaknesses that exist in the implementation. The long periods that apprentices take to complete their studies on account of failing to pass the core/fundamental skills calls for a review of the curriculum design and delivery approaches. Design issues include scope and sequencing of concepts and content, while delivery includes teacher/instructor preparation, teaching and learning materials, and learning environment, among others. This case study has shown that most challenges have to do with teacher/instructor preparation, and involvement of the industry in the preparation of learners.
- iii. Mere provision of training materials (modules) is not enough as the case study has revealed that unqualified trainers were unable to utilize the instructional materials effectively.
- iv. Short training courses conducted in the form of workshops are not adequate and do not equate to institution-based pre-service training as observed by respondents.
- v. Most training institutions are inadequately financed. This makes it difficult for them to provide adequate teaching and learning materials for the core/fundamental skills.
- vi. The absence of monitoring and evaluation is another major issue that needs to be addressed if improvements are to be made. According to TEVETA manuals the curriculum is supposed to be revised every three years. However, according to reports from the respondents no curriculum review has ever been conducted.

### **5.15 Recommendations**

- i. Firstly, there is need to review the curriculum (which includes the core/fundamental skills). The Ministry of Labour and TEVETA should review the TVET curriculum and engage stakeholders in redefining the core/fundamental skills.
- ii. TEVETA as a body responsible for curriculum development of the apprenticeship training programme should review the curriculum, taking into account issues to do with delivery, professional training of trainers, assessment, and teaching and learning materials in core/fundamental skills. The review should involve teachers/instructors, the industry and students in order to establish and address the core causes which make some of the students fail to pass the core/fundamental modules forcing them to over stay in colleges beyond their mandated 4-year training period.
- iii. In view of the lack of a teacher training institution for technical instructors/teachers, ILO and other agencies in the TVET sector should assist in the production of easy to follow practical teaching guides/workbooks to be used by teachers in the delivery of the core/fundamental skills in the classrooms.
- iv. It is very clear from the case study that there was and is very little awareness and social marketing of the core/fundamental skills in Malawi. ILO and other agencies should help in the social awareness by, among others, helping in setting up a civil society organization on TVET that should take the lead in voicing out concerns about TEVET (and core/fundamental skills) on behalf of all stakeholders.



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## The Philippines

### Core work skills in PHL TVET: Analysing efforts in integrating basic competencies in TVET

Author: TESDA under the supervision of Irene Isaac

#### 6.1 Introduction

Surpassing government's expectations, the Philippine's annual GDP was posted at 6.6 per cent in 2012. The domestic economy further accelerated to 7.5 per cent in the 2<sup>nd</sup> quarter of 2013 as compared to 6.3 per cent (2Q of 2012). As in previous years, the resilient service sector remained the main driver of economic growth in 2013, supported by substantial improvements of manufacturing and construction. On the demand side the growth came mainly from consumer and public spending, reinforced by increased investment. In its report, the World Bank cited that sustained increase in construction investment would provide an extra boost in the economy and growth in exports would hinge on the recovery of electronics exports and higher growth of non-electronics (World Bank, 2013).

The labour market survey of July 2013 showed that out of 41.2M labour force, 38M are employed. Of this, 53 per cent comes from the service sector, 31 per cent from the agriculture sector and 15.6 per cent from the industry sector. The bulk of the service sector is the wholesale and retail trade; repair of motor vehicles and motorcycles sub-sectors. These sub-sectors posted the largest increase from the same period last year, generating 506,000 jobs, followed by transportation/storage (+154,000) and administrative/support service (+124,000).

Although jobs were generated, there are about 10M unemployed/underemployed and more than 1M potential entrants each year. Of the total unemployed, the majority (49 per cent) belongs to the age group 15-24 and high school graduates/undergraduates (44 per cent) (Bureau of Labour and Employment Statistics, 2012). The country faces the enormous challenge of providing good jobs to 14.4 million Filipinos through 2016. In addition, as the bulk of total employed persons are labourers and unskilled workers (32 per cent), targeting these workers in skills development will provide the opportunity for better jobs and avoid precarious work situations. The World Bank report recommends for the government to focus on generating higher, sustained, and more inclusive growth, creating jobs and reducing poverty.

Fundamental to the realization of inclusive growth is the education and training system which produces knowledge and skills required for the world of work. Thus, knowledge and skills are valued as the key strategic resource to achieving growth objectives. There are different pathways to acquire knowledge and skills and the TVET sector is one of these.

To contribute to the national goals of inclusive growth and poverty reduction, the TESDA manages middle level education focusing on post-secondary technical-vocational education and training for middle-level learners. These learners refer to those who have acquired practical skills and knowledge equivalent to at least a secondary education; or skilled workers who have become highly competent in their trade or craft.

The TESDA began implementing reforms leading to a quality assured competency-based TVET system in 1998. It formally established and defined a national qualifications framework for TVET in 2003 known as the Philippine TVET Qualifications Framework (PTQF). Under this framework, four levels of qualifications: National Certificates I to IV are defined. With industry stakeholders, the TESDA facilitates the development of national TVET qualifications based on units of competency. The PTQF therefore gives national recognition to the attainment of knowledge, skills, attitudes and values in the middle-level occupations. The qualifications are termed "national", referring to TESDA-promulgated qualifications developed by recognized national industry or professional body.

The TESDA actively provides the needed TVET programmes to minimize the jobs/skills mismatch. Innovative measures are in place to increase the employability of TVET graduates. Since 2012, TVET provision is delivered by a network of 4,509 public and private institutions which registers training programmes with the TESDA. Since 2012, a total of 20,246 programmes have been registered under the Unified TVET Programmes Registration and Accreditation System (UTPRAS) of the TESDA. Together with industry partners, a total of 239 training regulations (TRs) were developed in consultation with industry and promulgated by the TESDA Board. The TRs set the minimum standard required of the curriculum, trainers' qualifications, facilities and equipment.

As of 2012, TVET has had a total of 1.6M graduates and 85 per cent of those assessed were certified. The certification ensures that the graduates and skilled workers have the necessary competence to perform the tasks consistent with the required standards prescribed by the industry and contained in TRs. Graduates not assessed had either opted not to be assessed yet, or had taken training programmes not yet covered by TRs. Assessed individuals who satisfactorily demonstrate competence on a particular unit or cluster of units of competency are awarded a "Certificate of Competency", while those who demonstrate competence in all units of competency that comprise a qualification are awarded a "National Certificate".

## 6.2 Overview and inception of core skills (basic competencies) in TVET

The terms "core skills", "key competencies", "employability skills", "generic skills", etc are often used interchangeably by various international agencies and countries that have sought to strengthen their inclusion in TVET. Not only are these named in different ways, the skills themselves differ, depending on the definition, scope and level of employment under discussion. In the Philippines, what is termed as "core work skills" by ILO, "key skills" in the United Kingdom, "critical enabling skills" in Singapore and "key competencies" in Australia is called "**basic competencies**". These competencies are defined as the non-technical skills, knowledge, and attitudes needed in order to perform satisfactorily at work and in society. These skills are considered portable and transferable irrespective of jobs and industrial settings.

The developments leading to the formal introduction of basic competencies for TVET may be said to have begun at the time of the forerunner of the present TESDA, which is the former National Manpower and Youth Council. It was part of career guidance or vocational guidance or vocational preparation as it was variously called then. This was even before the advent of the SCANS (Secretary's Commission on Achieving Necessary Skills) report in the USA and the Mayer study in Australia which in a way set the tone for what would come to be known as the core work skills.

The establishment of TESDA as the country's TVET authority in 1994 may be said to have paved the way for the introduction of the basic competencies. Among the reforms introduced for the country's TVET sector was the competency-based training system, seen as a step towards quality-assuring the development and delivery of TVET programmes.

The foreign-assisted TVET projects in the Philippines (PHL), the TESDP (Technical Education and Skills Development Plan) and PAQTVET (Philippine-Australia Quality TVET) from the 1990s to 2006 provided the impetus for the formal definition and establishment of the basic competencies in the PHL TVET. Consultants from Australia and New Zealand, bringing with them their countries' experiences with competency-based TVET, together with TESDA's national partners assisted in formally defining and introducing the basic competencies.

Later, in view of the evolving trends in the workplace, TESDA convened its industry partners and other stakeholders to a consultative, tripartite process participated in by the government, industry and workers associations. This ILO-funded project assessed whether the "core work skills (basic competencies)" already identified by TESDA incorporated the requirements of employers across industries. After validation and refinement, the proposed basic competencies were formally approved and promulgated by the TESDA Board in May 2005. With this promulgation, the basic competencies

became a required component for all TVET programmes covered by TRs. The project was noted to be one of the first initiatives of the ILO in the sub-region on core work skills.

The 2005 Competency Standards has 20 basic competency units, clustered into five strands, namely, communication; teamwork; problem solving; planning; and health, safety, and sustainable development. Also they were grouped by level according to the TVET NQF (National Qualifications Framework). It was also clarified that these competencies would not be nested by levels, i.e., the competencies for lower NQF levels would not be a prerequisite for the higher NQF levels.

### 6.3 Stakeholder involvement

Key stakeholders from industry (labour and employers), the academe (TVET and higher education), and the government were called upon in the validation and refinement of the basic competencies. Also some members of the TESDA Board, which is in itself a multipartite body with majority of members coming from the private sector, were involved in this phase. From the start, training providers and clients have agreed on the need to incorporate desirable work attitudes and values in technical and vocational training programmes. It remained for TESDA as the PHL vocational training authority to eventually define and promulgate these skills as basic competencies for all TVET programmes.

**Table 6.1: Basic competencies for TVET**

<b>PQF level</b>	<b>Workplace communication</b>	<b>Teamwork</b>	<b>Problem solving</b>	<b>Planning</b>	<b>Health, safety and sustainable development</b>
NC I	<ul style="list-style-type: none"> <li>▪ Receive and respond to workplace communication</li> </ul>	<ul style="list-style-type: none"> <li>▪ Work with others</li> <li>▪ Demonstrate work values</li> </ul>			<ul style="list-style-type: none"> <li>▪ Practice housekeeping procedures</li> </ul>
NC II	<ul style="list-style-type: none"> <li>▪ Participate in workplace communication</li> </ul>	<ul style="list-style-type: none"> <li>▪ Work in team environment</li> <li>▪ Practice career professionalism</li> </ul>			<ul style="list-style-type: none"> <li>▪ Practice occupational health and safety procedures</li> </ul>
NC III	<ul style="list-style-type: none"> <li>▪ Lead workplace communication</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lead small teams</li> <li>▪ Develop and practice negotiation skills</li> </ul>	<ul style="list-style-type: none"> <li>▪ Solve problems related to work activities</li> <li>▪ Use mathematical concepts and techniques</li> </ul>		<ul style="list-style-type: none"> <li>▪ Use relevant technologies</li> </ul>
NC IV	<ul style="list-style-type: none"> <li>▪ Utilize specialized communication skills</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develop teams and individuals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Apply problem solving techniques in the workplace</li> <li>▪ Collect, analyse and organize information</li> </ul>	<ul style="list-style-type: none"> <li>▪ Plan and organize work</li> </ul>	<ul style="list-style-type: none"> <li>▪ Promote environmental protection</li> </ul>

The packaging rule for qualifications as defined in the training regulations would be

National qualification = basic competencies + common competencies + core/specialist competencies  
 [+ elective competencies]

At first the idea of giving certificates for achievement of the basic competencies was proposed but this was never pursued. The present practice is to assess the basic competencies concurrently with the core or specialist competencies in a specific qualification. The assumption is that the basic competencies are built in or embedded in the core or specialist competencies. Currently the basic competencies are part of all national TVET qualifications as defined in the TRs promulgated by the TESDA Board.

## **6.4 Curriculum and training delivery**

The basic competencies were defined per NQF level. Each national qualification for a specific NQF level would include all the basic competencies defined for that level. Eventually new curricula and learning materials were developed for these competencies. Currently the basic competencies are mandatory for TVET programmes covered by TESDA-promulgated TRs. These may be integrated in both on- and off-the-job curricula. We do not know however to what extent they are integrated in enterprise-based and on-the-job training programmes covered by the TRs.

We can only be sure of their integration in school-based and center-based programmes. There is no clear-cut monitoring mechanism for ensuring the recommended competency-based delivery of these competencies since the current compliance audit covers only the registration and reporting of TVET programmes with TRs, as prescribed in the agency's current quality procedures.

Best practices among private technical vocational institutions indicate the clear integration and assessment of these basic competencies in their TVET programmes registered with TRs.

Public TVET providers, including TESDA-administered institutions, are largely compliant with the requirements and there have been best practices documented among some of them, particularly those covered by third-party accreditation schemes.

A survey of eight training implementers, four private and four public institutes, was done to describe and assess the extent to which the core skills (basic competencies as referred to in this paper) for employability have been implemented in curriculum development and training delivery of TVET. The survey also determined how programme implementers confront specific issues, challenges and lessons learned in the implementation process.

### **6.4.1 Strategies in addressing core skills (basic competencies) in the curriculum**

#### **Public institutions**

Public institutions, particularly those directly administered by the agency (the TESDA technology institutions), religiously follow the TESDA standards in teaching basic competencies. As part of the required units of competency in the TVET programmes covered by the training regulations, all the basic competencies at the particular Philippine Qualifications Framework (PQF) level should be completed before the trainee can proceed to the common and specialization competencies. Various learning activities/methodologies are used to achieve the learning outcomes in the modules. Trainee performance is evaluated generally after completion of each module. The application of the basic competencies is also reinforced as they learn the common and specialization competencies where these (the basic competencies) are applied or embedded. For example, the basic competency on occupational health and safety (OHS) is embedded in *process farm wastes* which are a common competency for qualifications in the agriculture and fisheries sector. In this sense, the delivery of the core skills or basic competency on OHS is strengthened and contextualized when it is taught in connection with the processing of agricultural or farm wastes. In the same way, in the maritime sector, for the qualification of deck rating or ordinary seafarer, the delivery of the basic competencies on workplace communication, teamwork, career professionalism and OHS is enhanced when taught in conjunction with the common competencies for maritime such as ship abandonment and survival at sea, fighting and extinguishing fires, and observing safe working practices and the specialist competencies for seafarers such as: steering the ship, keeping appropriate lookout by sight and sound, and operating emergency procedures.

Public institutes do mapping of curriculum based on the national competency standards contained in the TESDA-promulgated TRs. Sample curricula for each TR is made available through the TESDA website, but each school or institution, whether public or private, is free to develop its own curricula (writing their own or adapting/customizing the sample TESDA curricula) provided these are compliant with the promulgated TRs. In practice, many institutions adapt the whole TESDA curricula or make some changes to these curricula. In the delivery of training, trainers may deliver the instruction in their own style or preferred methodology and even use their own learning materials or hand-outs.

### Private institutions

We mentioned before that registration of TVET programmes with TESDA is mandatory under current guidelines and the law that mandated TESDA as the country's TVET authority. Registration may or may not be covered by TRs. For With Training Regulation (WTR) programmes, integration of the basic competencies is fairly straightforward, complying with the requirements of the corresponding TR in terms of basic, common and specialist competencies as well as the nominal duration, and the training facilities, equipment and materials and the assessment arrangements. For No Training Regulations (NTR) programmes, an essential step in the process of integration of the basic competencies for both public and private institutions is the determination of the skills needed by the current job market. Based on this information, the aim is to design a curriculum focusing on students' achievement of learning outcomes useful in employment.

Mapping of curriculum with existing competency standards as required in the TRs is the general practice for both public and private institutions.

Some institutions claim they go beyond the minimum requirements of the training regulations. Existing units are expanded or complemented in terms of elements or learning outcomes and knowledge and skills requirements. The purpose is to ensure quality of training in terms of skills acquisition and employability of the trainees. One institution, which is run by a religious order, expanded the basic competencies to include work attitudes, character and discipline within the spiritual framework espoused by the religious order. Another institution, which is run by a local government unit, packaged and implemented a three-year industrial-technology programme under the dual-training system, a system patterned from the German vocational training and promoted by a Philippine law. This programme consisted of 18 months in-school and 18 months in-plant components, leading to qualifications along shielded-metal arc welding, consumer electronics servicing, and lathe machining. The basic competencies were included under what were called professional-development subjects covering customer relations, personality development and supervisory-skills development.

To cope with the changing needs and required skills of industries, some institutions find it necessary to develop new units of competency for both the basic and specialization competencies. In one institution, for example, to prepare students for new technology in electronics and automotive, new units of competency and modules on automation and sensors technology were developed.

Another institution mentioned the need to widen the coverage of its training in construction trades to include competencies in plumbing, masonry, welding and steel works to enhance skills and employability of its students in civil-works technologies.

To strengthen the delivery of the basic competencies, another institution developed new units of competency and modules on personality development and values education (including core values, work ethics, and moral laws). This institution also developed modules on what it calls "Skills for Life".

## 6.4.2 Training delivery

### Public institutions

The method of training delivery practised in public institutes is competency-based and generally learner-centered and trainer-driven. When necessary, there are learning activities in the training modules that are facilitated by the trainer to be more effective. Though taught separately, these activities can be integrated in the basic competencies like working in a team (grouping), participating in workplace communication between and among trainees, applying health and safety practices/procedures and practicing career professionalism.

Of the four respondents, three confirmed that they have developed new teaching and learning materials to support delivery of specialization competencies. This is for those institutions and trainers who want to use their own customized/preferred curricula and learning materials. As it is now, TESDA promulgates and disseminates the TRs and sample competency-based curricula, but leaves it to individual TVET institutions and trainers to develop and use their own learning materials and resources for the basic, common and specialization competencies.

### Private institutions

Several teaching methods consistent to the prescribed standards are used by respondents from private institutions. These include:

- i. Classroom discussion
- ii. Actual practice in shop/lab settings in school, or during in-plant or on-the-job training
- iii. Multiple learning or mixed modes aimed to address various learner characteristics as well as the need for improved efficiencies in time and cost such as instructor-led in-school training, computer-based training (both online and offline), and self-paced/self-directed learning methods.

One institution provides additional activities like basic leadership training and values formation activities (retreat, recollection, chat, coaching and counselling) aimed to strengthen culture, work ethics and professionalism.

Another institution is currently working on giving portable training kits and laboratory consoles. With help from partner companies, audio-visual facilities and lab equipment/semiconductor test consoles are being improved.

One TESDA training center made use of the basic competencies in delivering its training particularly with regard to fulfilling the requirements of PHL law regarding gender-sensitive training. The basic competencies on *Demonstrate work values (NC I)* and *Practice career professionalism (NC II)* were enhanced to cover gender and development concerns. It was noted that these were the competencies where gender-sensitivity concerns would be most appropriate to be introduced. That is, the development of gender and work values should start at the lowest entry level of education and training.

## 6.5 Assessment and reporting schemes

### 6.5.1 Assessment

Currently, for WTR-registered TVET programmes, the basic competencies are offered as an integral part of the whole qualification as defined in the TRs. Some institutions however, invite resource persons from within or outside the institution to deliver lectures or talks on selected aspects of the basic competencies. For NTR programmes, however, the basic competencies are not mandatory for inclusion but may be recommended by the TESDA field office evaluating and registering the programme.

For graduates of WTR programmes, national assessment is mandatory upon completion of the programme. National assessment is conducted by TESDA-accredited competency assessors in



TESDA-accredited assessment centers or venues. The basic competencies are not separately assessed during national assessment, rather they are assessed concurrently during the performance of the common and specialization competencies.

The TVET institutions are however required by TESDA to assess the basic competencies in what is known as institutional assessment or assessment done in school or after completing modules on the basic competencies. Both public and private institutions utilize a variety of methods of assessment for the basic competencies as part of the competency-based approach to training and assessment. These methods include, aside from the usual written tests, role-playing, simulation, group and individual demonstration and reporting, oral questioning, interview, lecture-discussion and case discussion.

The assessment tools for the basic competencies are developed for each of the methodologies recommended in the evidence-guide portion of the basic competencies. The performance criteria specified in the basic competencies serve as a basis for gathering evidence of competency during the assessment. Development of assessment tools is part of the training on trainers/assessors methodology required for TVET trainers. Trainers are given leeway in developing and conducting assessment using their own preferred method of assessment based on their trainees' composition and backgrounds as well as school policies.

The recording and reporting of the results of the assessment of the basic competencies are made through class records, course diaries, and progress charts. One public institution has been cited for its innovative way of reporting using progress charts where "smileys" are tacked for each unit of competency (basic, common and specialization) achieved or demonstrated by the trainee, a simple but conspicuous demonstration of competency-based training.

Private institutions - Assessment methods used by three private institutions includes actual observation, written and/or oral questioning. Trainees performing work requirements are being observed in real work and real time activities. Oral test/questioning are done to assess the trainee's ability to listen, interpret, and communicate ideas.

One institution uses demonstration, portfolio and third party feedback to measure basic/core competencies. Third party feedback are testimonials, report from employers or supervisors, evidence training, authenticated prior achievements, interviews with employers, supervisors, and peers. On assessment tools, respondents from private institutions have different ways of developing it. These are: 1) based on current standard of assessment; 2) through teachers and industry consultation; and 3) based on the identified learning outcomes. On this, criteria and weight of evaluation are identified for each task. Expected responses based on tasks will be the basis of scoring the performance or test.

All three respondents use numerical/letter scale in assessing and reporting trainees' performance. Assessment of trainees, whether competent or not yet competent is also practiced by two institutions. On this, competence assessment is carried out in two ways, qualitatively and quantitatively. Qualitative assessment focuses on the satisfactory and completion of an assigned task, while in quantitative assessment of competence satisfactory level may be equivalent to a grade equal to 75 per cent or above.

Two institutions cited a qualitative type of assessment based on industry competition of individuals and teams, through ranking of trainees, scale and survey ratings.

To ensure fairness, evaluation checklist and other sources to check performance are used. Respondents believe that consistent result of different measures indicates fairness in assessment. Recording all the activities of the student and following set standards are important practices to ensure fairness.

## **6.5.2 Reporting arrangements**

### **Public institutions**

Records of learners who complete core skills units or modules are made in progress/achievement charts, which eventually will be transferred to class records. TESDA Women's Center on the other

hand, keeps record by monitoring completion of each module per unit of competency of the trainee in his/her record book, signed by the trainee and trainer.

Reports are made using terminal report forms, kept in hard and soft copies. One institution may submit a monthly terminal report, while another, a report at the end of each training. Public institutes submit to proper TESDA offices, namely district, regional, provincial offices and OTTI (Office of TESDA Technology Institute). Feedback is given after institutional assessment or at the end of each module. In one public school, feedback is given on observed assessment. This encourages sharing of thoughts and experiences.

### **Private institutions**

Official grading sheets, report cards and transcript of records are used in records grades of students. Records are manually and electronically compiled for deliberation, promotion and appraisal purposes. Records are in the custody of the college, while the registrar office and department heads are provided a copy. These records are forms of feedback, other forms are conference and home visitation, if necessary. Statistics generated are submitted to the department head and registrar, and/or TESDA if necessary.

## **6.6 Professional development of teachers, trainers and institution managers**

### **Public institutions**

Trainers receive methodology training, CBLM (competency-based learning material) Write shop, and e-learning development of CBLM. They also undergo national competency assessment when training programmes are completed. Institution managers also receive upgrading programmes. Trainers are guided on how to introduce core skills to the classroom/institution by the training module.

### **Private institutions**

Training programmes for teachers/trainers includes how to deliver and assess core skills. While example of capability building for institution managers given are:

- i. Masters in Innovative Technical Education
- ii. Leadership Enhancement and Development (LEAD) Programme
- iii. Work Attitude and Values Enhancement (WAVE) Programme
- iv. Team Leaders' session on Basic Leadership Skills and Coaching

Institutions are guided by their manual of operation in introducing core skills.

## **6.7 Core skills awareness-raising/social marketing**

The basic competencies or core work skills in PHL TVET have been introduced through the TRs. TVET providers under TESDA's oversight have largely been compliant with the TRs and integrated such basic competencies in their programme offerings. As mentioned in this study, however, it still remains to be seen as to how large an extent such basic competencies have been internalized by TVET enrollees and graduates.

Awareness-raising on the basic competencies has largely been through blue-collar desks and career guidance programmes of TESDA promoting the middle-level or TVET qualifications as a viable career option for high-school graduates. As with other countries, there still remains the erroneous notion among parents and youth that TVET is a catch basin for "lesser mortals" incapable of embarking on higher education. This is gradually changing, however, particularly with the continuing demand for lucrative overseas blue-collar jobs (e.g. technicians, mechanics, labourers) and the continuing high unemployment and underemployment rate among college and university graduates.

A welcome impetus to TVET enrolment, however, is the introduction of the K-to-12 basic-education reform where the present 10 years of basic education in the country would be expanded to 12 years with kindergarten introduced. Under this reform, TVET qualifications at levels 1 and 2 in the PQF would be introduced at Grades 11 and 12 for students choosing the TVET track in senior high school.



This is expected to result in high levels of enrolment in TVET programmes and consequent high level of exposure to the basic competencies in senior secondary schools.

## 6.8 Monitoring and evaluation

The Philippine TVET faces increasing pressures to be responsive and competitive in the global market. It has to adjust its programs and standards to the diverse and constantly changing needs of the global economy. In its desire to make 20 basic competencies more relevant and responsive to the demands of the major TVET industry sectors, TESDA in 2006, commissioned the SEAMEO INNOTECH (Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology) to deepen its existing basic TVET competencies.

Using a 3-pronged approach, the project reviewed the basic competencies outlined in the 2005 Competency Standards as to its values, surpluses and linkages with knowledge, skills and attitude requirements of the century; and identified/validated the emerging TVET basic competencies. The methodology included the following activities: 3-day DACUM workshop, validation survey and a multi-sector consultation meeting.

Selected TESDA specialists, academe and TVET providers participated in The DACUM workshop. From this activity, it was recommended that “**competency clusters**” in the 2005 Competency Standards be called “Basic Competency Strands”. It was further suggested that the last strand on “Health, Safety and Sustainable Development” be divided into two: 1) promotion and maintenance of health and safety standards; and 2) sustainable development and environmental awareness. Thus, expanding the original five strands into six, namely: Communication Skills, Values and Leadership, Problem solving and Numeracy Skills, Job Organization and Planning Skills, Health and Safety Standards and Environment Protection and Sustainable Development. Each strand has units of competencies that relate to one another and connect to each element, indicating the national competency level for each, National Competency levels I to IV.

Through a survey, the validation process was conducted to determine the “level of importance” of identified TVET basic competencies. Competency standards rated to be “of great importance” are “health and safety standards and environment protection and sustainable development”. Communication and mathematical skills were rated as “slightly important” validating the new TVET competencies identified during the DACUM workshop.

However, the above recommendation on basic competencies has not been promulgated yet by the TESDA Board, and thus is yet to be implemented.

## 6.9 Conclusions, major issues and learning points

Respondents, both from private and public institutes think that the nominal hours allocated for basic competencies is too short. Though it can be integrated in the core competencies, training implementers both public and private can choose to follow the TESDA-developed CBLM. Another issue raised by public institutes is the concern of second courser trainees who are unwilling to take subjects (e.g. maths, English) included in the basic competencies, because they have already taken them previously.

Currently, TESDA is working on integrating what are known as 21<sup>st</sup> century skills, including higher-order thinking skills (HOTS) among the basic competencies. For example, competencies relating to critical thinking, learning-to-learn and entrepreneurial skills have been proposed for addition in the basic competencies. Also, previously the national TVET qualifications framework defined only four levels for TVET. With the establishment of the PQF, a fifth level diploma for TVET was introduced, necessitating the definition of basic competencies for this new level.

Likewise, in the benchmarking of the basic competencies with those of other countries, the need for a new rule or paradigm in the packaging of the basic competencies, together with the common and core/specialist competencies to form a qualification, has been cited. Do we stick with the present arrangement of defining specific units of competency for each strand (i.e. communication, health and

safety, teamwork etc.) for each level in the national qualifications framework or do we just specify specific skills for embedding to a certain degree in individual specialist units of competency?

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