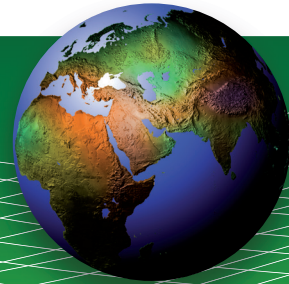




Technical and Vocational Teachers and Trainers in the Arab Region

A Review of Policies and Practices on
Continuous Professional Development





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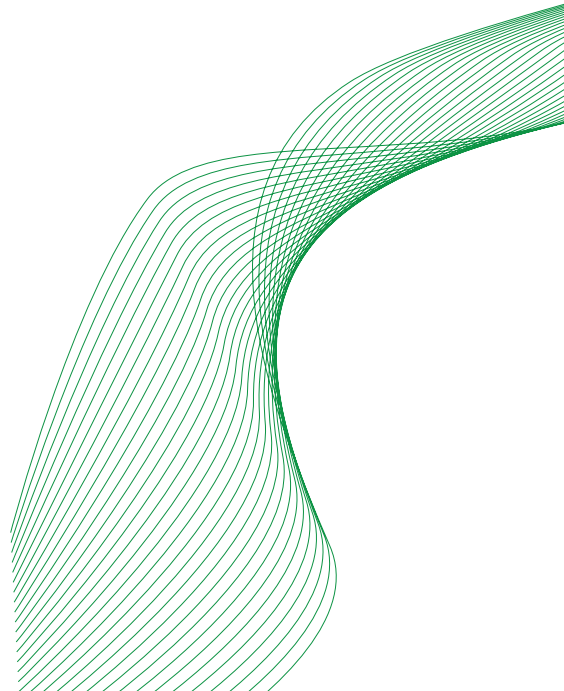
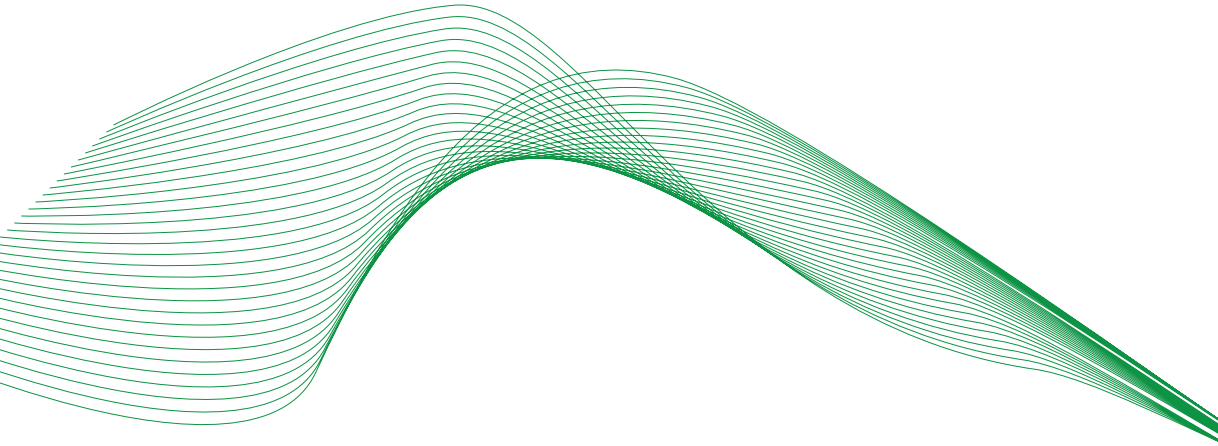
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*The Secretariat of the
International Task Force on Teachers for EFA*





Introduction

This research was commissioned by UNESCO and the International Task Force on Teachers for Education for All (EFA). It focuses on the role of teachers and instructors in technical and vocational education and training (TVET) within the Arab region. It builds on international research and the outcomes of the Third International Congress on TVET organized by UNESCO in Shanghai (China) in May 2012 and the TVET Regional Expert Meeting held in Muscat, Oman (17-19 March 2012) which have drawn attention to the importance of the quality of teaching and training as a necessary condition for TVET achieving its social, economic and educational goals. Given that good quality teaching and training are crucial to the achievement of TVET goals, it is important to clarify what is currently known about the quality of teaching and training. Further, it is valuable to understand the factors that determine quality. Pre-service and in-service training are obviously important, but other factors also matter: recruitment, deployment, supervision, wages, career structure and management, performance assessment, qualification and leadership.

Concept and scope

This research concerns particularly pre-service and in-service training. Throughout this report this will be referred to as teacher and instructor training (TIT). It seeks to map out the character and extent of provision across ten Arab countries in a comparative manner, making it possible to understand where there are similarities and where there are differences in approach and in outcomes. However, this investigation of teacher and instructor training is situated within the larger question of what makes for quality and effectiveness in the TVET workforce. This research therefore aims to place teacher and instructor training within the political and institutional context of each of the ten countries in order to understand how TIT combines with other factors (e.g. recruitment, career structure, wages, management, governance) to shape the quality of teaching and training. In addition, the report focuses particularly on change and development: we want to understand not only the status quo but how policies and the current set-up are shaping the future and what opportunities exist for improvement and progress.

This synthesis brings together the findings from ten national investigations.¹ This permits a comparative approach which allows policy-makers to understand that many of the challenges that they are dealing with are not unique and that there are opportunities for learning and, perhaps, for developing collaborative strategies in the future.

The ten countries are: Algeria, Bahrain, Egypt, Jordan, Lebanon, Morocco, Oman, Saudi Arabia, Tunisia, and United Arab Emirates (UAE). A main focus of the ten studies is to investigate the role that teacher and instructor training (TIT) is playing within these ten countries with respect to both policy and practice. We are concerned with all staff contributing to TVET - teachers, instructors, trainers and tutors - whether they work in schools or colleges, training centres or enterprises. Further, the reports explain how TVET policies are shaping TIT or setting objectives or challenges for TIT. The reports also consider how features of TVET governance affect the reform and development of TVET generally and TIT in particular. With respect to practice, the reports provide an up-to-date audit of the state of TIT in each country, describing the institutions and the kinds of programmes and qualifications that are offered. They go on to describe the role of TIT in determining the volume, the specific competences and the overall quality of TVET teachers and trainers, as well as their motivation, professionalism and overall performance. They provide insight into the way that the national configuration of TIT interacts with other key factors affecting the TVET teaching force, such as recruitment, career development, institutional structure and governance, quality assurance, licensing, employment conditions and status. They also point the way to a consideration of how TIT might contribute more.

¹ Summaries of the ten reports can be found at UNESCO website: www.unesco.org

Methodology

This report draws upon the experiences of ten Arab countries: Algeria, Bahrain, Egypt, Jordan, Lebanon, Morocco, Oman, Saudi Arabia, Tunisia, and UAE. It is one element of this UNESCO project, together with the development of a network of policy-makers and experts from the participating countries and the organisation of two workshops. One of the key objectives of the project is to help the countries of the region learn from one another's experiences as a way of improving both policy and practice.

The report is based on three main sources of data. The first is a set of ten background reports, using a common analytical framework, written by national experts selected by UNESCO from the participating countries. The second main source is evidence, expert inputs and feedback gathered during two workshops: the first a kick-start workshop organized in February 2013; the second a validation workshop organized in October 2013. The third source is the available literature on TVET teacher training in the region.

The guidelines for country reports asked for details of the key characteristics of TIT, such as TIT institutions, programmes, curriculum processes, funding arrangements, how TIT institutions are governed and organised, etc. However, in order to understand how these features of TIT shape the quality of TVET, it has been necessary to consider some broader factors, for example issues concerning attractiveness, retention, quality, recruitment and professionalization (OECD, 2005; World Bank, 2012). This report aims to examine the state and functioning of TIT for TVET taking into account these contextual factors.

In gathering the material needed to prepare the national reports, a questionnaire was prepared by the project team and then completed by key stakeholders in all ten countries. In addition, national experts visited a range of TIT and TVET institutions; organized focus groups, kick-start and validation workshops; conducted surveys; and consulted widely with the key stakeholders in TVET and TIT. Examples of those who were consulted include: ministries of labour and education; employer organizations; trade unions and employee representatives; public and private vocational training institutions; and teachers, trainers and leaders of TVET and TIT institutions.

Analytical framework

The diversity of systems, institutions and roles across the Arab region presents challenges in terms of terminology. Currently, there does not appear to be a common understanding of what is meant by key terms such as ‘technical education’ or ‘vocational training’. It is proposed, therefore, that the following terms be adopted in order to make it possible to make comparisons.

With respect to institutions, it is proposed that TVET be used as a comprehensive term referring to educational and training programmes that aim to develop practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. TVET includes different learning experiences (for example, classes, workshops, work experience) that may occur in and between a variety of learning environments, including public and private TVET institutions and workplaces.

For the purposes of this report, a distinction is made between ‘technical education’, which is defined as that part of TVET that is provided within the formal education system in secondary and upper-secondary schools or colleges, and

‘vocational training’ which is provided outside of this system, for example, in training centres and workplace training sites. Normally, technical education is governed by the Ministry of Education while vocational training is governed by other ministries, for example, the ministries of labour or training. However, there are exceptions; in Morocco for example, the governance of training and of education have recently been unified within one government department. Furthermore, TVET also takes place outside of the direct control of any government department in the private sector, both in private schools and colleges and in private training centres and enterprises.

This division of responsibility is documented in Table 1: the department or agency of government that carries most responsibility for TVET is identified in the second column (high-level governance), where provision is divided between ministries is shown in the next two columns, and the last column shows private sector provision. The number of institutions is indicated in parentheses.

Table 1: Summary of TVET provision and governance in the ten Arab countries

Country	High-level governance	Provision under Ministry of Education and Higher Education (technical education)	Provision under other ministries, e.g. Ministry of Labour (vocational education and training)	Private sector provision
Algeria	Ministry of Vocational Education (<i>Ministère de la Formation et de l'Enseignement Professionnels</i>) (MFEP)	n.a.	Institutes of vocational training: ² Institut de formation et d'enseignement professionnels – IFEP (6); Institut national spécialisé de formation professionnelle – INSFP (75); Institut d'enseignement professionnel – IEP(4); Centre de formation professionnelle et d'apprentissage – CFPA (690); Centre national d'enseignement professionnel à distance – CNEPD (1). In addition, approximately 100 public training institutes relating to other functions, e.g. health, justice.	Accredited private training providers (établissements agréés de formation professionnelle – EAFP) (636)
Bahrain	Ministry of Education	Technical schools (4); Bahrain Training Institute; Bahrain Polytechnic.	Industry-related vocational centres (10)	Private training institutes (>130)
Egypt	Ministry of Education + PVTD + TOMOHAR + Industrial Training Council + Tourism Department	Technical secondary schools (1600); Regional colleges of technology (8), including 45 technical institutes.	Vocational training centres (900) divided between several ministries – PVTD, TOMOHARC; Middle level institutes affiliated with several government ministries.	Private training institutes and NGOs

2 This is a network of TIT Institutions organized geographically (by governorate) and thematically (by sector/trades).

Country	High-level governance	Provision under Ministry of Education and Higher Education (technical education)	Provision under other ministries, e.g. Ministry of Labour (vocational education and training)	Private sector provision
Jordan	Inter-ministerial council: E-TVET; Ministry of Education; Ministry of Higher Education; Ministry of Labour (VTC)	Pre-vocational programmes in general schools (230); Community colleges (26), including 14 under Al Balqa University.	Vocational training institutes (42) (11 specialised tourism centres and 31 multi-disciplinary centres)	Private community colleges (26) and private training institutes; private enterprises and NGOs.
Lebanon	Ministry of Education and Higher Education; Directorate General of Technical and Vocational Education(DGTVE)	Vocational training institutes and schools (108); schools providing <i>alternance</i> training (dual system) (17).	n.a.	Vocational training institutes and schools (227)
Morocco	Ministry of Education and Vocational Training, Department for Professional Training and Employment (<i>Office de la Formation Professionnelle et de la Promotion du Travail, OFPPT</i>)	Technical schools (<i>lycées techniques</i>); Post-secondary institutes (35).	Vocational training centres (327) (<i>Etablissements de Formation Professionnelle</i>)	Accredited vocational training centres (283); Post-secondary institutes (7).
	Ministry of Agriculture and Fisheries – Directory of Training, Education and Research (<i>Enseignement technique et Formation Professionnelle agricole – ETFPA</i>)	n.a.	Vocational training centres (44)	
	Ministry of Tourism (<i>Ministère du Tourisme, Direction des Ressources et de la Formation</i>)	n.a.	Vocational training centres (16) (<i>Etablissements de Formation Professionnelle</i>)	
	Other ministries and agencies	n.a.	Vocational training centres	

Country	High-level governance	Provision under Ministry of Education and Higher Education (technical education)	Provision under other ministries, e.g. Ministry of Labour (vocational education and training)	Private sector provision
Oman	Ministry of Manpower: DG – Technological Education and DG Vocational Training	n.a.	Vocational training centres (6); fisheries training centres (2); colleges of technology.	Private training institutes (162)
Saudi Arabia	Technical and Vocational Training Corporation (TVTC) associated with Ministry of Labour	n.a.	Colleges of technology (52); Strategic partnership higher institutes (22); College of applied technology (1); PPP colleges of excellence (international providers) (11); Industrial high schools (72).	Private training institutes (967)
Tunisia	Ministry of Employment and Vocational Training and Ministry of Education	Pre-vocational stream in lower secondary and technical stream leading to Technical baccalaureate in upper secondary	Tunisian Agency for Professional Development (ATFP) (136); Agency for Agricultural Training (AVFA) (39); Agency for Tourism (ONTT) (8).	Various private institutes and schools (17% of post-compulsory cohort)
UAE	Federal: Ministry of Education; Ministry of HE and Scientific Research; National Qualifications Authority; Emirate: Abu Dhabi Centre for Vocational and Technical Education (ACTVET) and the Dubai Knowledge and Human Development Authority (KHDA)	n.a.	ADVETI, Institute of Applied Technology; Sharjah Institute of Technology; Higher colleges of technology; National Institute for Vocational Education	Private institutes

Source: National reports, 2013.

Given the diversity of TVET and education systems and the differences in terminology and language, it is difficult to establish shared definitions that apply to the TVET workforce across the region. However, in this research we make use of three broad categories of teachers or trainers:

- ‘Teachers’ work in secondary or upper-secondary institutions where they either teach theoretical subjects or practical skills in programmes that are recognized as vocational or technical or they teach general subjects or basic skills (such as mathematics) to students in technical or vocational programmes in general or specialist vocational or technical schools.
- ‘Instructors’ work in training centres other than secondary or upper-secondary schools and colleges. Typically such training centres are ultimately governed by the Ministry of Labour or Training rather than the Ministry of Education and the focus of instruction is

more on skills and occupational preparation than on technical or vocational subject knowledge and more likely to be workshop- than classroom-orientated.

- ‘Trainers’ work for enterprises where they typically provide on-the-job training to employees. This may take the form of continuing work-based learning for employees or trainers may contribute the work-based part of apprenticeship training in a dual system.

Table 2 sets out this typology: this classification is based upon the character of the institution where teaching and training staff are employed. This classification has been defined for the purposes of comparison and the categories are therefore broad. It is not intended to do justice to considerable differences that exist in particular countries, for example between different kinds of teachers in Egypt.

Table 2: Typology of training institutions and of teachers and instructors they employ

Type of training	Relation to general education system	Governance		Teaching staff involved
Institution-based training	(i) Provided by the formal education system at secondary (lower/upper) or post-secondary level	(a) Under the supervision of the Ministry of Education and/or Higher Education		Teachers
		(b) Outside the supervision of the Ministry of Education		Teachers
	(ii) Provided outside the formal education system (semi-skilled worker/skilled worker/technician/higher technician qualifications)	(a) Public		Instructors
		(b) Non-public	For profit	Instructors
Not for profit	Instructors			
Workplace-based training	(i) Initial training: apprenticeship	Public and private Trainers		Trainers
	(ii) Continuing vocational training			Trainers
Combination of multiple types of training (e.g. sandwich programmes, alternance programmes, dual systems)				Teachers, instructors and trainers

Source: UIS



Textile training. © ESITH Casablanca, Morocco

TVET teachers
and instructors
– international
policy and
research



The last ten years have seen increased research interest in the character of the teaching workforce, the relationship between the teaching workforce and learner outcomes, and in the factors that help to shape the quality and effectiveness of teaching. Among a number of general studies about teachers,³ there have been some studies that have looked particularly at TVET teachers.

3 The work of Hattie has influenced policy makers, including TVET policy makers.

The Organisation for Economic Co-operation and Development's synthesis report of international research, *Learning for Jobs*, identified key issues for the TVET workforce in the context of OECD countries: ageing, an absence of workplace experience and insufficient pedagogical preparation for work-based trainers. The report recommended greater partnership between TVET institutions and enterprises and more flexibility to permit practitioners to alternate between exercising professional skills in the workplace and teaching those skills in TVET institutions.

The American management consultancy firm McKinsey & Company investigated the factors that explain the most successful education programmes in Asia, Europe, North America and the Middle East. The report concludes that certain education systems achieve substantially better outcomes than others because 'they have produced a system that is more effective in doing three things: (i) getting more talented people to become teachers; (ii) developing these teachers into better instructors; and (iii) ensuring that these instructors deliver consistently for every child in the system'. McKinsey's 2010 follow-up study set out four stages of education policy that explain sustained improvement in student achievement: 1) scaffolding for low skilled-teachers; 2) ensuring school and teacher accountability; 3) enhancing the status of teachers and educational leaders; and 4) establishing the processes and career paths necessary for a strong profession.

OECD's *Creating Effective Teaching and Learning Environments* reports on the first findings from the Teaching and Learning International Survey (TALIS) of secondary teachers in general education in 23 countries. The survey explores the extent and quality of professional development from the perspective of teachers. The report raised

questions about the targeting of professional development and its value to teachers and also about the most effective funding model. The report also explores relationships between teachers' professional development, their background characteristics (e.g. gender) and their beliefs, practices and perceived self-efficacy. It is suggestive of relationships that may also operate for TVET in the Arab region – but without a comparable survey we cannot draw firm conclusions. The TALIS report discovered a gap between teachers' beliefs about the kind of pedagogy they thought desirable and their own practice. This finding was confirmed in a Dutch study that focused on TVET teachers which found that changes in teachers' understanding were not sufficient to change behaviours and that sustained support, collaboration and mentoring might be required to bring about improvements in teaching and learning.

Cort, Härkönen and Volmari report on findings gathered through the Teacher and Trainer Network (TTnetwork), a pan-European network of national networks that sought to instigate and share research on VET. The research suggested that economic, policy, demographic and technological change, together with new understandings about the practice of teaching and training have very extensive implications for the teacher and training workforce. In particular, teachers and trainers need new pedagogical and occupational competences and these competences cannot always be developed on the job. The case studies reported in this study suggest that alternation between learning through practice and learning through reflection, enhanced theoretical understanding and updating of occupational experience can help to renew teacher and instructor skills. The study found that European countries were meeting these needs through accredited teacher

and instructor training (TIT), including credit-based programmes that contribute to higher education qualifications, but with diverse funding mechanisms. The study also places an emphasis on collegiate work processes as a strategy for reducing workload.

The European QualiVET project investigated the way in which teachers and trainers change and improve their performance: the research draws attention to the way that collaborative approaches can support innovation and contrasts this to the barriers faced by VET teachers working alone. This finding places value on collaboration as an outcome and a tool for in-service teacher and instructor training (IS-TIT). The European Centre for the Development of Vocational Education (Cedefop)'s study *Curriculum Reform in Europe* (2012) demonstrated that the introduction of competence-based approaches to the design of curriculum does not lead to the expected changes in outcomes for learners if teachers and students fail to change their teaching and learning behaviours, and that curriculum reform can lead to perverse consequences. A follow-up study by Cedefop describes how teachers interpret and implement written curricula and show that if teachers are effectively trained and supported this can lead to innovations in pedagogy which are associated with improved outcomes for learners.

The International Labour Organization's (ILO) publication *Teachers and trainers for the future* (2010) commented on the greater range of skills and functions that are currently asked of TVET teachers, for example different pedagogical and assessment skills, working in both school and work-based modes. Extended competences imply greater expectations from both pre- and in-service training. Change affecting TVET was seen as demanding more social dialogue between TVET

and social partners – employers, unions, workers. An increase in social dialogue – and at least in Europe, of trans-national dialogue – was reported. The work of the European Training Foundation (ETF) with the countries of south-east Europe to strengthen the national TVET agencies' role in developing the competences of TVET teachers and trainers could be seen as another example of trans-national network building. The aim of this programme, called LEARN, has been:

- To help TVET providers to continuously innovate and adapt to changing conditions and local needs;
- To cope effectively with the challenges of new policies through locally-based development work, innovation of teaching and learning, and increased preparedness for international network learning and project cooperation; and
- To nurture TVET providers' expertise by actively encouraging them to take part in knowledge-sharing based on horizontal learning processes (Nielsen, 2011).

A regional review of TVET by UNESCO together with the Southern African Development Community (UNESCO/SADC, 2013) investigated some of the themes addressed by the current research. The draft final report identified a number of key issues, in particular that more progress has been made taking on internationally approved policy prescriptions for TVET (such as greater responsiveness to the labour market, improved governance and performance in service delivery) than in implementing these policies, particularly at local level. The review reported that professional development of the workforce was variable, but in general it was neglected and that the training of

TVET instructors (working outside of schools) was particularly weak, especially in smaller countries. It concluded that improving the provision of TVET teacher education and addressing issues of remuneration and status were key priorities for southern African TVET.

The World Bank's MENA (Middle East and North Africa) regional study on general education teacher policies applies the methodology and tools known as System Assessment and Benchmarking of Education Results (SABER-Teachers) to benchmark policies and systems with respect to teachers in seven Arab countries, including Jordan, Egypt, Lebanon and Tunisia. These countries were assessed on a 4-point scale

on 8 core criteria or policy goals (see Table 3). The survey concluded that Egypt could be regarded as an example of 'good practice' while Tunisia and Jordan showed good practice in some areas. Lebanon was judged to be weak overall. The report found that entry to pre-service teacher training was not generally competitive among MENA countries, that the quality of TIT was held back by the absence of clear standards and regulations, and that on-going participation in IS-TIT was not sufficiently recognised or rewarded. In addition, this research remarked on the limited scope for head teachers and teachers to shape school curriculum and practice and, further, on the absence of follow-up with regard to teacher performance evaluation.

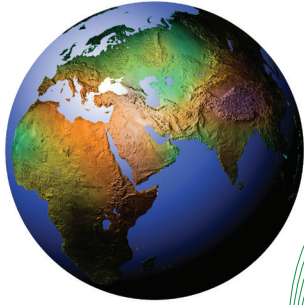
Table 3: Summary of evaluation against eight SABER policy goals

Teacher Policy Goals	Djibouti	Egypt	Jordan	Lebanon	Tunisia	West Bank and Gaza	Yemen
Setting clear expectations for teachers	Established ●●●○	Established ●●●○	Established ●●●○	Established ●●●○	Established ●●●○	Emerging ●●○○	Established ●●●○
Attracting the best into teaching	Emerging ●●○○	Established ●●●○	Established ●●●○	Established ●●●○	Established ●●●○	Emerging ●●○○	Emerging ●●○○
Preparing teachers with useful training and experience	Emerging ●●○○	Mature ●●●●	Emerging ●●○○	Emerging ●●○○	Established ●●●○	Emerging ●●○○	Emerging ●●○○
Matching teacher's skills with student's needs	Latent ●○○○	Emerging ●●○○	Emerging ●●○○	Latent ●○○○	Latent ●○○○	Latent ●○○○	Latent ●○○○
Leading teachers with strong principals	Latent ●○○○	Established ●●●○	Emerging ●●○○	Established ●●●○	Established ●●●○	Emerging ●●○○	Emerging ●●○○
Monitoring teaching and learning	Emerging ●●○○	Established ●●●○	Established ●●●○	Established ●●●○	Established ●●●○	Established ●●●○	Emerging ●●○○
Supporting teachers to improve instruction	Established ●●●○	Established ●●●○	Established ●●●○	Emerging ●●○○	Established ●●●○	Emerging ●●○○	Established ●●●○
Motivating teachers to perform	Emerging ●●○○	Established ●●●○	Established ●●●○	Latent ●○○○	Established ●●●○	Emerging ●●○○	Emerging ●●○○

Source: World Bank, MENA Regional Synthesis on the Teacher Policies Survey: Key Findings from Phase I (2010-2011).

UNESCO's *Education for All Global Monitoring Report* (2014) draws attention to the way that successful outcomes in TVET depend upon universal and equitable primary and lower secondary education. It shows how good quality education and training for all depends upon the provision of sufficient numbers of appropriately trained teachers, incentivising these teachers to make a long-term commitment and deploying them to those areas and learners that need them most.

In summary, we can generalise by saying that while research is increasingly investigating the impact of teachers and trainers on the success of TVET reform, at this point we do not have strong evidence at an international level that measures impact in a robust manner. However, research in general education, for example, as synthesised by Hattie, suggests that this impact will be relatively important. Lastly, there is recent research into the role of teachers and trainers in the development of TVET in the developing world which is helping to define key themes and appropriate methodologies for ongoing research.



The Arab region

The ten countries discussed in this study vary greatly in terms of size, economic structure, political institutions and wealth.⁴ However, they share religious, linguistic, cultural and geographical features. Regional co-operation is relatively weak although it has been fostered by the Arab League and, at sub-regional level, by the Gulf Co-operation Council (GCC) and the Arab Maghreb Union. Some progress is being made in setting up trade agreements within the region, e.g. the Agadir Agreement.

4 See Annex C.

Some Arab countries have substantial earnings from the export of oil but most have limited exports. In general, Arab economies are characterised by low investment levels, excessive regulation of business and a growing informal economy. TVET is sometimes seen as serving industrial policy: offering the means to raise labour productivity, attract investment and diversify the economy.

Populations are growing rapidly which is leading to increased demand for jobs and high youth unemployment. Unemployment rates for women are generally markedly higher than for men. TVET is seen as a way of supporting employment, transition and equal opportunities. In the absence of unemployment protection and social welfare (except in Algeria and Saudi Arabia), only the public sector offers job security, making this sector relatively attractive. In most countries in the region the public sector is relatively large, partly because it serves as a tool to contain unemployment, while the private sector is mostly composed of relatively small companies with limited prospects for growth.

Partly as a consequence of these facts, migration, inwards and outwards, is often significant. Algeria, Egypt and Morocco are among the world's top ten emigration countries. In the Gulf, by contrast, immigration of foreign workers is high. Indeed, in Bahrain, Oman and UAE, more than half of those working in the private sector are foreigners. Policy-makers in the Gulf see TVET as a tool to create a national labour force that is able and willing to work in the private sector.

Compulsory mass education has been established across the region. However, the Trends in International Mathematics and Science Study (TIMSS), developed by the International

Association for the Evaluation of Educational Achievement (IEA), suggest that, in general, the quality of basic education is well below average: achievement in maths and science was significantly lower than the centre point eighth-grade students in UAE, Bahrain, Tunisia, Saudi Arabia, Oman, Lebanon and Morocco. In Algeria, Morocco and Tunisia less than half of eighth-grade students reached the lowest TIMSS baseline. Jordan, Tunisia and UAE participated in the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA) in 2012. All three countries were below the OECD average in the domains of reading, and in mathematical and scientific literacy; Tunisia, however, demonstrated annual achievement growth rates of more than 2% across all three domains.

In recent times, considerable ambitions have been set for TVET systems across the Arab region. However, despite much policy formulation there is a general view that implementation has been weak. Failure is commonly attributed to weaknesses in the quality of TVET provision and poor links with labour markets.

On the whole there is nonetheless evidence across the region of improvements in the governance of TVET. Generally (with the exception of Egypt) unified central structures have been established and, at the same time, there have been some moves towards decentralisation, at regional or institutional level, and some progress at widening participation, for example through sector bodies. However, so far the engagement of social partners has been limited, partly because of a traditional reluctance of governments to engage with social partners, and partly because of a lack of capacity of social partners.

There have been moves to develop labour market intelligence with a view to inform the development of the TVET system. Observatories have been developed in Egypt, Jordan, Morocco, Saudi Arabia, and Tunisia with support of international donors. However, so far the main focus of these observatories, except in Tunisia, has been to identify occupational profiles rather than to understand or forecast labour market needs.

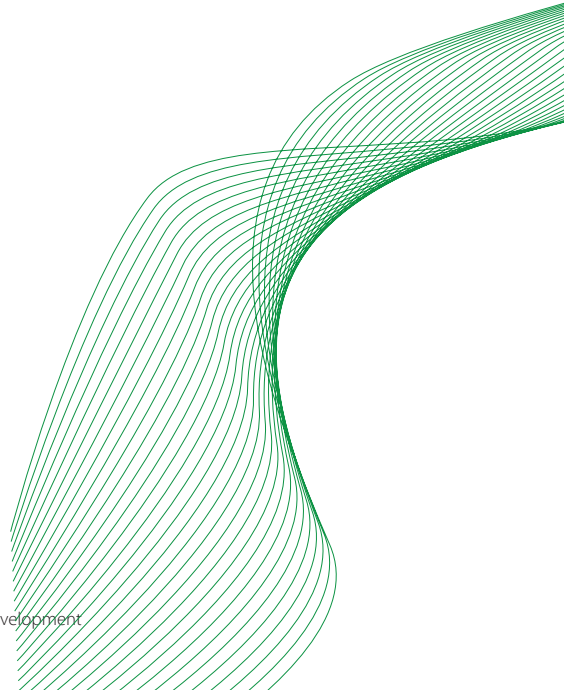
A current policy trend has been to encourage the development of private sector TVET and to seek to regulate it. In Morocco, Saudi Arabia and Tunisia private providers receive a public subsidy. In Jordan, public providers are permitted to charge fees for some TVET programmes.

There have been moves in some countries, such as Morocco, Saudi Arabia and Algeria, to expand work-based learning, for example through apprenticeships. In Morocco, the apprenticeship policy is aimed to combat unemployment but also to support agriculture and traditional crafts. Algeria is seeking to increase the share of apprentices in TVET from 30% to 70%. In Saudi Arabia, the TVTC, the Council of Saudi Chambers and private companies have come together to offer a programme of largely work-based training aimed at Saudi citizens.

Curriculum and qualification reform has been high on the policy agenda. All ten countries have either developed or started to develop a national qualifications framework (NQF). However, there are some differences in the kinds of NQF that have been designed.

Since 2011, a number of Arab countries have experienced radical political change and instability. Political turbulence was an outcome of frustration with the political and economic status quo – the new environment is one of heightened expectations and optimism but also one of uncertainty and, in some countries, division.

Generalising, one can say that there are rising economic and social expectations in the Arab region and that TVET is regarded as one tool which might make it possible for more of these expectations to be realised.



A globe of the Earth is positioned in the upper right quadrant of the page. It is surrounded by a complex, artistic arrangement of thin, green, wavy lines that flow and swirl around it, creating a sense of motion and interconnectedness. The lines are most dense around the globe and spread out towards the bottom and left sides of the page.

National TVET
strategies:

policies,
programmes,
institutions

Without an established policy or strategy for TVET, development of the TVET system (and of TIT in particular) is likely to be erratic, inconsistent and modest. However, effective policy development is likely to be closely linked with the establishment of effective governance for TVET in general and TIT in particular. Governance in this context concerns the allocation of responsibilities for decision making, management, finance and quality assurance at national and local levels.

The country reports suggest that in Egypt and Lebanon, the task of establishing a national policy has been frustrated. The Egyptian report mentions three unsuccessful attempts to establish an overall strategy for TVET. These reverses are attributed to a lack of funding, resistance from existing institutions and absence of unified governance. Taken together the reports suggest that a successful strategy for TVET development will include: gap analysis of the numbers and specialisms of TVET teachers and trainers by sector; a qualifications strategy; measures to address the status and rewards of TVET teachers and trainers; quality assurance processes; and a realistic and transparent process for the governance and funding of TVET institutions. In Lebanon, it is reported that 'there is no clear vision, structure or strategic plan to guide the actions and decisions of the TVET system'; recently, however, a national strategy for TVET has been published which may lead to change.

Policy development and implementation have been impeded by the fact that TVET falls between the areas of responsibility belonging to ministries for education and for employment. Within government, authority for TVET may be divided between agencies with responsibility for secondary and tertiary phases of education. In some countries, for example in Egypt, Algeria and Morocco, there are a number of agencies or departments with an interest in TVET, some of which are themselves the legacy of historic reforms. The emergence of a coherent TVET strategy has, in many countries in the region, been closely connected to the establishment of a body – either a dedicated agency or a unified government ministry – to formulate TVET policy and authorise its implementation. In Egypt, where fragmentation is greatest of all of the countries in this study, TVET policy is divided between the

many government departments and independent agencies that provide technical education or training. There are no effective coordination mechanisms and the overarching body which has formal authority with regard to these functions, the Supreme Council for Human Resources Development, has not met for some eight years.⁵ Where such bodies have only been established quite recently (for example, in Jordan) or where governance of TVET has been relocated on several occasions (for example, in Algeria) this appears to have delayed formulation and implementation of policy.

However, while the formation of a national strategy and a national agency for TVET may be necessary for reform, these changes are not sufficient. In Algeria, for example, it is reported that since the 1990s the policy has been to develop a TVET system oriented towards labour market entry, based on a model where a *baccalauréat professionnel* could lead to higher professional education. However, this policy has encountered a number of difficulties and the *baccalauréat professionnel* is not yet in place and there are other challenges: How to meet additional demand for higher education? How to establish credible pathways into professional employment? How to break with existing organisational structures and processes?

In Tunisia, where reform has been supported by international partners (such as the EU, the World Bank and the French Development Agency) there has been a firm policy commitment to modernising the TVET system in order to make it more responsive to the skills needs of the private

5 In January 2013 steps were taken to establish a National TVET Authority to take the place of the Supreme Council for Human Resource Development. Also, see World Bank, 2012, *What matters most in teacher policies?* (SABER Report).

sector, communicated in terms of competencies. In order to achieve this goal, the government has sought to reform the governance and institutional basis of the TVET system, delegating management power to vocational training centres, but at the same time making them accountable to central government through performance targets. The results of these reforms are judged to be disappointing: enterprises have not increased their engagement with training centres sufficiently; training centres have not been sufficiently responsive to the labour market; and performance management of training centres has not been effective. Also, it has not been possible, so far, to obtain the necessary labour market and performance data. In other words, policy has not been successfully implemented because it has not been possible so far to bring about the changes in institutional processes and relationships necessary to underpin the envisaged operational changes. A particular challenge in post-revolution Tunisia is trying to achieve a political consensus around reforms that were instigated by the previous regime and to adapt them to new policies. For example, for providers of vocational training there is the National Standard for Quality Assurance of Vocational Training, which applies to all processes of management and delivery including human resources (training of trainers). This standard is linked to ISO 9001 but up to this point it has not included any requirement for the participation of social partners.

Morocco formed its current vision for TVET in 1999 but progress in implementation has been subject to national review, leading to renewed action plans (i. e. the *Programme d'Urgence*, 2008-2012), after progress was judged to have fallen behind target. This renewed reform programme seeks to harness new energy through a strategy of decentralisation including, for example, a regionalisation of TIT

and a development of sectoral strategies. This move reflects the experience that even a unified authority with a clear vision at the centre will depend, at least in countries such as Tunisia and Morocco, on dynamic local or regional institutions for the successful implementation of its policies.

To summarise, in Egypt and Lebanon policy development in TVET appears to be hindered by the absence of a central political structure that is committed to reform and has the necessary political authority. In Algeria, Morocco and Tunisia, on the other hand, a centralised authority does exist and is committed to reform, but so far it has not been able to bring about the changes to institutions – national or local – that are necessary for implementing the policies that have been proposed.

In contrast, Saudi Arabia and the UAE are reported to have well developed policies and governance for TVET and, so far, reasonably smooth implementation. In Saudi Arabia, for example, governance and provision of TVET have been the responsibility of the Technical and Vocational Training Corporation (TVTC, formally known as GOTVOT) since 1980. This agency is gradually stepping back from exercising the role of provider and focusing on commissioning, regulation, accrediting, quality assurance and the development of capacity. The composition of Saudi Arabia's TVTC Board of Directors reflects the importance given to employment policies: the Board is chaired by the Minister for Labour and 50% of the Directors are representatives from the private sector. The TVTC benefits from access to demographic and labour market information and has appropriate levels of funding. An ambitious expansion of TVET provision has been embarked upon by commissioning private international providers. While policy continues to be centrally

controlled, delivery is becoming more pluralistic and marketised. Consistency of standards is achieved by means of national occupational standards (in existence for ten years) and nationally developed training units. The TVTC intends to use its power as a commissioner to encourage providers to adopt more modern, learner-centred pedagogies and to offer to learners and to employers training that is better adapted to their needs.

UAE has a unified structure of governance for VET, the Vocational Education and Training Awards Commission (VETAC), which reports to the National Qualifications Authority. This is a recent development, but VETAC has already published a strategy for the development of VET. UAE's strategic policy focuses on (1) the development of national occupational standards, qualifications and assessment; and (2) improving the quality of provision, in part by encouraging private, international provision. This strategy of raising quality by importing high-quality international VET provision makes UAE of particular interest, and highlights the work of the regulation agency (ACVET in Abu Dhabi). However, UAE also has a development agency, KHDA in Dubai, which is the lead agency for professional development and the recruitment of teachers, and for school inspection. UAE has a relatively well developed strategy and apparatus for the development of qualifications, which involves formal contributions and validation from industry as well as from experts. It is not clear whether this engagement of industry has helped to raise the credibility or validity of VET qualifications as intended.

In Bahrain, educational policy does place a strong emphasis on strategies for improving the quality and professional development of teachers, and there have been reforms dedicated to how initial

and in-service training for teachers should be developed and provided. However, so far there have been few measures specifically aimed at vocational teachers and instructors.

Jordan has made progress in improving the governance of TVET, but policy development and implementation are less advanced at this point. Jordan has set up an inter-ministerial E-TVET council in 2008, chaired by the Ministry of Labour and including representation from training providers and social partners. E-TVET decides on policy and has published a high-level set of priorities for TVET (2011-13). Thanks to funding raised from a levy on foreign workers, E-TVET has been able to restructure existing institutions and establish new institutions to implement this strategy. E-TVET has also been able to improve coordination, but TVET governance remains fragmented between three government departments. There are some legislative matters that still need to be resolved, and the Higher Council for Human Resources Development, which is intended to coordinate the work of E-TVET with the rest of education, has not yet been established. Nevertheless, greater autonomy is being given to the agency responsible for apprenticeships and some of the institutional building blocks of a TVET system are being put into place: a centre for accreditation and quality assurance (CAQA) to regulate TVET institutions⁶ and programmes, a qualification framework, and a labour market information system. Also, with support from the EU, the Ministry of Education has launched a TIT programme as part of this implementation.

6 Currently quality assurance for TVET is divided between different institutions corresponding to the different ministries.

Lastly, it must be recognised that the absence of a well-defined strategy and of institutions of governance is not the only reason for the neglect of TIT. Bahrain and Oman have reasonably clear governance and strategies in place for TVET, but there is relatively little public policy and engagement in TIT for TVET. Jordan has made considerable progress in defining political and institutional responsibilities with respect to TVET, but so far TIT for TVET teachers and instructors is relatively poorly developed in that country.

If we examine the substance of policy rather than the manner in which policy is developed and agreed, we find diversity in focus and scope. Table 4 summarises the focus areas and scope of recent TVET policy across the ten countries in the region. Absence of recent policy does not necessarily imply a deficiency in the TVET system, since some policies may be unnecessary or have a low priority. However, it seems clear that the establishment of NQFs, the implementation of a national TVET strategy, and the introduction of monitoring and evaluation mechanisms have been relatively popular areas for policy-making while TVET staff development and qualification development have been relatively neglected. We can also distinguish some countries, such as Egypt, Jordan and Tunisia, that have been active in setting policy across a number of areas relating to TVET in comparison to other countries, such as Bahrain and UAE, where the policy focus has been on only one or two areas.

We can also see that policy emphasis may differ from one sub-region to another. In the Gulf States there has been an emphasis on switching from public to private provision of TVET, on using TVET to promote employment opportunities for the national labour force as opposed to migrants, and on diversification of the economy away

from oil. The policies in these countries aim to address deficiency in meeting the demand for TVET from learners; to rapidly bring into existence, from a relatively low starting point, a high quality TVET provision which will be attractive to native learners and will support the goals of economic diversification and sustainable growth. In the Mashrek (Egypt, Jordan, Lebanon), by contrast, there has been more emphasis on getting key structures and agencies for public TVET provision into place; securing funding; engaging stakeholders; and improving existing TVET provision. In the Maghreb (Algeria, Morocco, Tunisia), policy is more focused on getting public sector provision of TVET to work better, in particular by making it more responsive to the labour market: the challenge is to change institutional behaviours and incentives so that national targets for volumes and quality of TVET outputs are achieved. The challenge in the Maghreb has also been to adapt inherited institutions and change established cultures among professionals and administrators. In particular, actions have aimed to create better links with the world of work and partnerships with employer federations. These policies reflect different political systems, different starting points and different political pathways. However, there are nonetheless some forces for convergence. Increasingly, across the whole Arab region, TVET policies are influenced by goals relating to aspirations and equity, as well as goals concerning economic growth and productivity. There are already opportunities for policy learning between sub-regions, for example concerning the advantages and disadvantages of setting up new agencies to energise TVET reform. While at any moment there may be a particular priority to make TVET more attractive for learners, more responsive to employers or to improve its governance, ultimately successful TVET policy-makers need to address all of these issues!

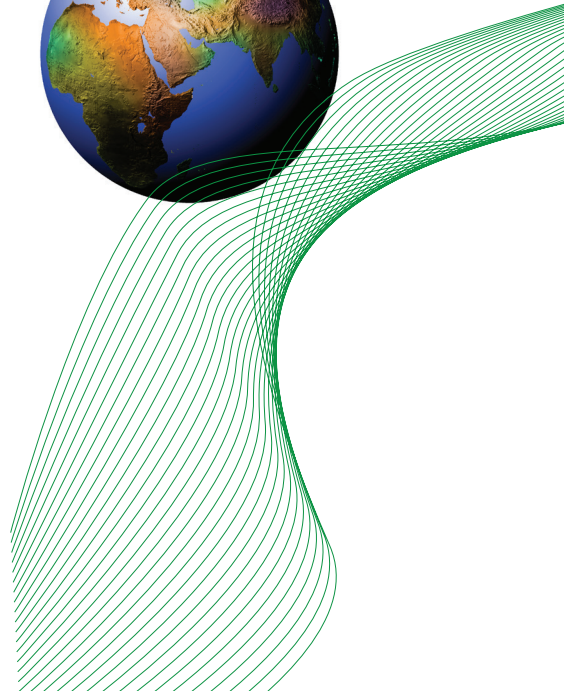
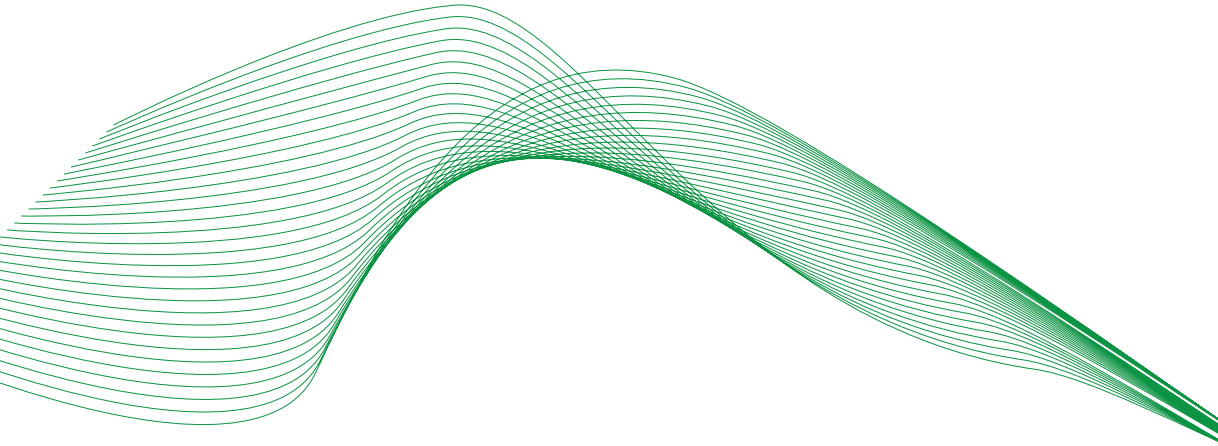
Table 4: Current policy focus across the Arab region: grey highlighting indicates focus areas of current TVET policy

	Monitoring and evaluation	NQF	Qualifications development, e.g. occupational and curriculum reforms	TVET workforce development	Improving links between TVET and enterprises	National governance of TVET, e.g. councils and agencies	Planning, e.g. national strategy	New or reformed TVET provision	Funding	Labour market information
Algeria										
Bahrain										
Egypt										
Jordan										
Lebanon										
Morocco										
Oman										
Saudi Arabia										
Tunisia										
UAE										

Source: Authors, based on country reports.



Vocational Training in Saudi Arabia. Photo: SAVT – Creative Commons – Saudi Arabia



The background features a complex, abstract design of thin, green, overlapping lines that create a sense of movement and depth, resembling a stylized leaf or a dynamic wave pattern. The lines are most concentrated in the center and right side of the page, with some extending towards the left edge.

Teacher and
instructor
training (TIT)
in TVET:

profile of
teachers,
TIT projects,
schemes and
pilot actions

This section reports on what research has revealed about the organization and functioning of teacher and instructor training (TIT) across the Arab region. It should be noted that TIT is just one element of the TVET and education system and we need to understand how TIT contributes to the operation of the whole.

The place of TIT within TVET

This section begins, therefore, with a review of three key factors that determine the quality of teachers and trainers: recruitment and incentives, quality assurance processes, and professionalization. We need to be aware, however, that good structures and effective processes within TIT may not carry through to the TVET system if other critical elements, such as effective recruitment, incentives or quality assurance, are not present. Further, it is important

to consider how TIT interacts with these other factors, for example how teacher qualifications are rewarded and how developmental needs are identified and addressed. It makes sense, therefore, to start with a quick review of the key factors determining quality across TVET in the ten countries before we go on to explore pre-service teacher and instructor training (PS-TIT) and then in-service teacher and instructor training (IS-TIT).

Quality assurance in TVET

TIT determines the quality and the quantity of human resources going into TVET, and therefore it can be expected to contribute strongly to the effectiveness of TVET. However, the interaction between TIT and the rest of TVET will depend upon other features of the TVET system. This section reviews three of these features across the Arab region: recruitment, professionalization and quality assurance.

Recruitment

In the Maghreb and the Mashrek sub-regions, becoming a TVET teacher or instructor is relatively attractive because of the profession's civil-service status and the lack of alternative employment with comparable benefits. In consequence, the supply of candidates exceeds the number of vacancies and recruitment can be selective. In the Gulf sub-region, by contrast, the status and rewards associated with the TVET workforce are relatively unattractive in comparison to alternatives. Demand for teachers and trainers

exceeds supply and the gap is filled by migrants. This has resulted in different recruitment strategies intended to increase attractiveness, particularly for nationals.

In most of the ten countries considered in this report, teachers and instructors working in the public sector are classed as civil servants and are subject to the same standards and procedures as other civil servants. This means that recruitment, payment, transfer and promotion are centrally controlled; however, the director or head teacher of the school may also exercise some influence, for example through annual assessment. In general, the civil-service status of TVET teachers and trainers is well-established and forms part of the attraction of TVET teaching as a career in the Arab region. However, centralised control of staffing limits the capacity of heads of TVET institutions to drive up quality through staffing decisions. An exception is Oman, where directors of TVET schools are included in interview panels. Also, head teachers and school principals in Algeria and

Egypt have the freedom to appoint and dismiss part-time and fixed-term teachers, as do the heads of most private institutions. While this can give school heads greater control in staffing matters, it could also work against the quality of teachers, as the qualifications, training and incentives for part-time and fixed-term staff are lower than for permanent staff.

More positively, centralised employment and the system of transfers may be used to ensure quality across the whole TVET system. In Egypt, for example, the Ministry of Education may direct good quality staff to 'hard-to-staff' schools. In Morocco and Saudi Arabia, there appears to be less centrally-controlled direction, and higher scoring candidates can, in effect, choose schools. In Lebanon and Tunisia, centralised allocations are not judged to be 'fair' by some stakeholders; it is reported that allocations to schools are affected by 'influence' or 'politics'.

As civil servants, teachers and instructors share the same professional and ethical standards as the rest of the civil service. Only in Egypt and Saudi Arabia do teachers have clear ethical and professional standards of their own. In Algeria, Jordan, Morocco, Oman, Saudi Arabia and Tunisia occupational standards for teachers have been developed, though they are not yet implemented in Algeria, Jordan and Tunisia and only partially implemented in Morocco. Also, it remains to be seen whether these occupational standards can develop into standards which are owned, endorsed and implemented by the profession itself.

Professionalization

Professionalization is a key concept for understanding the position of teachers in modern societies; however, the concept is used in various ways. For the purposes of this study, the key dimensions of professionalization are:

1. qualifications that licence practice for the whole profession;
2. an appropriate training to acquire the knowledge that underpins the profession;
3. an independent body that regulates and oversees professional practice (including entry and exit from practice) – ultimately leading to professional self-regulation;
4. norms or codes that are shared by the profession and which regulate conduct;
5. a distinctive occupation which is closed to outsiders; and
6. a relatively high level of social status and income or other benefits.

It is important to recognise that professionalization means the development of professionalism: in the long term, policy-makers will be interested in progress rather than achieving a particular standard. The available data do not permit a systematic analysis of the degree of professionalization of TVET teachers and instructors in each of the ten countries discussed in this study. However, it is clear that in respect

of some of the above dimensions, for example the existence of qualifications, TVET teachers and instructors are fairly strongly professionalized in all ten countries. On the other hand, in most of the ten countries teaching does not have its own code or independent regulatory authority, because it forms part of the civil service. Furthermore, part-time and temporary contracts blur the boundary between those who are trained and qualified to practice the profession and those who are not. Also, the social status of technical teachers varies between sub-regions but is always higher than that of instructors and trainers.

Professionalization is important because it can serve as a resource for sustaining and improving the quality of teachers and instructors. This is because professionalization makes teaching a relatively attractive occupation and because it provides a motive for self-improvement and high performance. However, professionalization may be contested and professional interests can, on occasion, work against the interests of some stakeholders.

Egypt has a relatively professionalized TVET workforce. Teachers working in the public sector have a distinctive professional status as well as professional standards, career structure, quality assurance, recruitment process and incentive system. The Professional Academy of Teachers (PAT) is an independent authority that governs, develops and regulates the teaching workforce. While this means that structures and processes are appropriate for teachers, it remains that the profession is centrally controlled and, currently, faces challenges in meeting the high targets and

quality standards that have been adopted; for example, it is reported that it will take two years to deliver the IS-TIT entitlement to some 600,000 teachers.

Elsewhere in the Arab region we do not find independent professional regulatory bodies nor, except in Saudi Arabia, do we find a distinctive professional code for teachers. There is, however, a clear licence to practice: in all of the ten countries, permanent technical teachers must have university degrees though this is not the case (except in Egypt) for part-time and fixed-term employees, instructors or trainers.

Full professionalization is usually understood to imply self-regulation. In Algeria, Egypt, Lebanon and Morocco, TVET teachers are represented by trade unions on various partnership boards. However, unions are said to focus on the issues of pay, conditions of employment rather than on training and quality. There are professional associations for TVET teachers in Egypt, Morocco, Tunisia and, to a limited extent, in Lebanon that take an interest in quality and training issues and represent professionals in policy development. Unions and professional associations are absent in the Gulf States. Generalising, we can conclude that while there are elements of professionalization of the TVET workforce across the Arab region and that some countries, such as Egypt, have invested strongly in professionalization, more could be done, particularly to empower TVET teachers in shaping the norms and processes which determine how their profession operates and develops.

Quality assurance

In all of the ten countries there is a system of quality assurance for the performance of TVET teachers and instructors, including but not limited to new teachers.⁷ As a minimum this takes the form of some kind of regular assessment by head-teachers, supervisors or department heads, once, twice or even three times⁸ per year.⁹ In Algeria, Egypt, Morocco and Tunisia there are official inspectorates, and an official inspectorate is to be launched in Bahrain. TVET teachers are observed and evaluated according to national standards following a nationally agreed procedure. However, this does not include all teachers and instructors even in the public sector; for example, in Morocco, post-secondary teachers and instructors are excluded from inspection. Assessment of teacher/instructor performance is usually linked in some way to incentives or intervention. In Egypt,¹⁰ Jordan, Morocco and Oman, assessment supports upward movement on the career ladder or access to IS-TIT and promotion. In Jordan, Oman, Morocco and Saudi Arabia successful evaluation is also linked to bonuses. This is not the case in Algeria or Tunisia where wages and promotion

depend on length of service and qualifications rather than performance. On the other hand, in most countries, negative assessment or inspection can lead to sanctions, such as warnings or even, ultimately, to dismissal (Egypt). Where there are inspections it is normal that weak evaluation leads to a recommendation for specific, remedial IS-TIT. However, the manner in which inspections and assessments are carried out varies between and within countries. Poor assessments and negative evaluations are generally said to be rare and, in Algeria and Morocco, reported to take an 'administrative' rather than substantive character. In the past, the evaluation of teachers in Tunisia has, on occasion, been associated with political rather than professional behaviour.

Quality assurance of work-based learning is, in general, less well developed. In Egypt, work-based learning that forms part of the dual system is subject to the same quality measures as the institution-based part, including inspection. In Morocco, Tunisia and Algeria apprentices are required to have a record book to record not only the training undertaken but also administrative matters such as attendance. This is to be checked by the staff of the TVET institution/apprenticeship training centre during regular visits to the enterprise. In practice these visits seem to be more inspectorial in nature (checking that the apprentice is attending work, not being exploited and so on) rather than pedagogical (designed to assist the firm to improve its training), and the list of the competences taught in the firm is often either quite superficial or non-existent.

7 Quality assurance with respect to TIT is dealt with below, in sub-sections 5.3.1 and 5.4.6.

8 In Saudi Arabia.

9 In UAE, for example, 81% of TVET head teachers (Sample size = 27) surveyed reported that they had evaluated teachers in their institutions during the last year.

10 However, in Egypt the basic salary is very low and a complex set of additional incentives has developed over the years: teaching allowance, cadre allowance, examination allowance. This reduces transparency and may work against the incentivisation of performance.

Pre-service TIT (PS-TIT)

In this section we examine the structure and processes of pre-service teacher and instructor training (PS-TIT) across the Arab region. By PS-TIT we understand the training or education provided for teachers and instructors before they commence teaching or, in some cases, at the very start of their teaching. In Sub-section 5.3.1 we consider governance and in the following sub-sections we consider institutions (5.3.2), curriculum, pedagogy and assessment (5.3.3) and then the manner in which trainee teachers and instructors pass from PS-TIT into teaching. Lastly, in Sub-section 5.3.5 we consider barriers preventing access to PS-TIT. Then, in Section 5.4 we examine in-service TIT (IS-TIT). Table 5 provides information on the key pre-service and in-service TIT institutions across the ten countries in this study.

Governance

In Algeria, Lebanon, Morocco, Oman, Saudi Arabia and Tunisia the governance of PS-TIT is unified.

In Tunisia, for example, the National Centre for Teacher Training and Training Instruction (*Centre National de Formation de Formateurs et d'Ingénierie de Formation – CENAFFIF*) delivers much of public PS-TIT, reporting directly to the Ministry of Training and Employment. In Lebanon, the Directorate General of Technical and Vocational Education directs and funds the three national pedagogic institutes for technical education (*Institut Pédagogique National de l'Enseignement Technique – IPNET*) and reports to the Ministry of Education and Higher Education. In Oman, PS-TIT governance is unified through the Director General of Technical Education, and in Saudi Arabia through the Technical and Vocational Training Corporation (TVTC). Saudi Arabia's TVTC is an independent agency with proper funding and authority to pursue its mission to advance TVET across both the private and public sector. With its authority, status and funding capability, TVTC has been able to drive the development of both TVET and TIT in Saudi Arabia.

Table 5: An overview of pre-service and in-service TIT institutions in the ten countries¹¹

	Institution	Type Governance	Ministry	Mission and scope	Programme
Algeria	National Institute of Vocational Education and Training (Institut national de la Formation et de l'Enseignement professionnels – INFEP)	Public body	Ministry of Vocational Education and Training	Promote, facilitate and coordinate the network of institutes of vocational training	IS-TIT & PS-TIT
	Institutes of Vocational Training ¹¹ (Instituts de Formation Professionnelle)		Ministry of Vocational Education and Training	Initial TVET Curricula design Teacher training	IS-TIT

¹¹ This is a network of TIT institutions organized geographically (by governorate) and thematically (by sector/trades).

	Institution	Type Governance	Ministry	Mission and scope	Programme
Bahrain	Bahrain Training Institute	TVET institute	Ministry of Education	Initial TVET training	IS-TIT
Egypt	Faculty of Education (Halwan University)	University	Ministry of Higher Education	Bachelor Degree of Technical Education	PS-TIT
	Faculty of Industrial Education (Helwan, Beni-Sowef, Suez Canal and Sohag universities)	University	Autonomous universities, with links to Ministry of Higher Education	Bachelor Degree of Industrial Technical Education	PS-TIT
	Faculties of education and industrial education	University	Autonomous universities, with links to Ministry of Higher Education	Higher diplomas (general and specialised) as well as MSc. and PhD. Also contribute to PAT training	IS-TIT
	Professional Academy for Teachers (PAT) ¹²		Autonomous Council chaired by the Minister of Education	Provide professional development programmes and accreditation certificates to teachers, trainers and administrative staff Establish the necessary procedures for the provision of accredited teacher training	IS-TIT
	Staff Development Institute (SDI-PVTD)		Ministry of Foreign Trade and Industry (under-PVTD)	Train trainers as well as administrative and management staff	IS-TIT
	TOMOHAR Trainers' Institutes (2).		Ministry of Construction and New Communities	Train instructors/trainers	IS-TIT

¹² PAT outsources TIT and does not have a training infrastructure.

	Institution	Type Governance	Ministry	Mission and scope	Programme
Jordan	Al Balqa University	University Board of Trustees	Ministry of Higher Education	Provide training and continuous education opportunities in different applied, human, natural and art sciences fields to students and employees	PS-TIT
	Training and Development Institute (TDI)	Institute	Ministry of Labour (under VTC)	Pre-service trainer training In-service trainer training Pre-service and in-service supervisor training Consultancy and research for enterprises	IS-TIT
Lebanon	National Pedagogic Institute for Technical Education (<i>Institut Pédagogique National de l'Enseignement Technique - IPNET</i>)	Vocational education institution under the supervision of the Director General of VTE	Ministry of Education and Higher Education	Prepare teaching staff for work in both public and private VTE schools Upgrade such staff in skills and competences Undertake research for methodological improvement	PS-TIT
Morocco	Centres for Competences Development ¹³ (<i>Centre de Développement des Compétences – CDCs</i>)	Vocational training centre	Ministry of Education and Vocational Training (under OFFPT)	Technical and vocational education and training	IS-TIT ¹⁴
	Regional Centres for Education and Training Teaching Staff ¹⁵ (<i>Centres Régionaux des Métiers de l'Education et de la Formation - CRMEF</i>)	n.a.	Ministry of Education and Vocational Training	Train teachers and trainers	PS-TIT and IS-TIT

13 This is a network of institutions organized by sector/trades. CDCs are embedded in vocational training institutes

14 CDCs provide initial TIT for new teachers and instructors after their recruitment as well as ongoing professional development.

15 This is a network of institutions organized geographically.

	Institution	Type Governance	Ministry	Mission and scope	Programme
Oman	College of Technology	College	Ministry of Manpower	Initial training of vocational trainers	PS-TIT
Saudi Arabia	Technical Trainers Colleges (TTC)	GIZ is responsible for the general management and administration of the College	Ministry of Labour (under TVTC)	Training vocational trainers	PS-TIT
Tunisia	National Centre for Teacher Training and Training Instruction (<i>Centre National de Formation de Formateurs et d'Ingénierie de Formation –CENAFFIF</i>)	Public corporation/ Board of Directors	Ministry of Vocational Training and Employment	Train Instructors and trainers Curricula design Instructional material design	IS-TIT ¹⁶
UAE ¹⁷	Emirate: Abu Dhabi Centre for Vocational and Technical Education (ACTVET)	Public	Ministry of Education, Ministry of HE and Scientific Research	TVET provider that provides training for its own new recruits and current teachers	IS-TIT PS-TIT
	Emirates College for Advanced Education and Higher Colleges of Technology	Public		Provides bachelor's degrees and diplomas in general education and technical subjects	PS-TIT

In Morocco, a recent reform (2013) has unified the governance of education and training under the same ministry. However, planning and delivery responsibilities are divided between different agencies serving different sectors. The main training agency, the Department of

Professional Training and Employment (*Office de la Formation Professionnelle et de la Promotion du Travail – OFPPT*), reports to a tripartite council under the minister. The OFPPT provides PS-TIT in the form of modules for instructors working in vocational training centres. These are provided

¹⁶ CENAFFIF also provides in initial TIT for new teachers and instructors after their recruitment.

¹⁷ UAE lacks specialised PS-TIT for TVET teachers: most technical teachers are trained abroad.

by local *Centres de développement des compétences (CDCs)*. The training of technical teachers is the responsibility of regional organizations (*Centre Régional des Métiers de l'Éducation et de la Formation - CRMEFs*) that report to regional administrative bodies known as academies. In Algeria, planning and funding are unified in the Ministry of Training and Vocational Education; however, funding and delivery responsibilities are then delegated to different types of teacher training institution: for example, the *Institut National de la Formation et de l'Enseignement Professionnels* (INFP, ex INFP) and six *Instituts de Formation et d'Enseignement Professionnels* (ex IFP). In Jordan there is a cross-ministerial council that directs and funds all PS-TIT. However, three different institutions report to this council, each with its own governance, and each addressing different kinds of PS-TIT: the Teachers Training Centre (serving schools); the Training and Development Institute (serving vocational training centres); and the National Training of Trainers Institute at Al Balqa Applied University (serving community colleges).

Egypt exhibits the greatest pluralism in governance. A variety of ministries control and shape PS-TIT corresponding to different departmental activities: industry, transport, housing, etc. There are a considerable range of different types of PS-TIT institution, with separate funding, philosophies and qualifications, e.g. universities, Egyptian Industrial Education Colleges, and the Staff Training Institute (STI) which serves the training centres operated by the Productivity and Vocational Training Department (PVTD).

Involvement of stakeholders

At the policy level, Algeria is committed to improving articulation between TVET and labour markets. In 2011 it set up a large (57 members) consultative committee (*le Conseil de partenariat*) for stakeholders, which contributes to policy formation. However, currently there is no involvement of enterprises in the design or governance of the PS-TIT programmes that are operated by universities. In Jordan, there is representation of employers on the E-TVET council, but no involvement in the governance of TIT institutions. There is also no involvement of enterprises in governance of PS-TIT in Lebanon, and the three PS-TIT institutes in the country are under the direct supervision of the DG-TVET.

In Egypt, industry is represented on the Supreme Council of Universities and also on some faculty councils in relation to PS-TIT programmes. In Morocco, enterprises have no voice in the PS-TIT for technical teachers, but there are now sectoral bodies which are consulted on apprenticeships and post-secondary qualifications. Employers are also represented on the council to which the OFPPT reports.

In Tunisia, the Ministry of Employment and Training has established sectoral partnerships with employers' organizations and sectoral federations to develop TVET in priority sectors and industries (ready-made garment, construction, transport, agro-food, telecommunication, electricity, etc.). Social partners (employers and union organizations) are represented on the CENAFFIF governing board.

In Saudi Arabia, half of the members of the TVTC governing board are representatives of enterprises. However, there appears to be no direct involvement of enterprises in the governance of TIT in Oman, Bahrain and UAE.

Engagement of stakeholders in TIT is relatively limited across the Arab region. However, Saudi Arabia, Tunisia and, to some extent Morocco, have relatively high levels of stakeholder engagement.

Planning

There is annual planning for the provision of PS-TIT in all ten countries except Lebanon, where annual planning has been proposed in a recently published new national strategy. Multi-year planning or forecasts occur only in Saudi Arabia and Morocco. In Algeria and Jordan funding is assigned to institutions, rather than functions; the institutions then determine how much funding should be dedicated to PS-TIT or other forms of TIT. In Morocco and Tunisia planning for PS-TIT is closely linked to recruitment planning. This is particularly the case in Tunisia where part of PS-TIT occurs after recruitment.

Quality assurance

Internal and external quality assurance (QA) of PS-TIT is provided for technical teachers in Morocco, at least the part of QA that takes place within universities. Similarly, in Egypt, initial TVET teachers and instructors training in universities, faculties of education and/or industrial education are assessed and certified according to the laws and regulations of universities approved by the Supreme Council of Universities. The National Authority for Quality Assurance and Accreditation in Education (NAQAEE) has operated in Egypt since 2007. The NAQAEE requires that every

university faculty operates a quality assurance system. However, research into one particular education faculty raised questions about the effectiveness of such systems.

In Algeria, inspection tools have been designed for quality assurance in PS-TIT but they are not yet operational. At present, there is no robust internal QA system. In Jordan, an accreditation agency has also been set up but it is not yet operational and there is no robust internal QA system. In UAE, the Vocational Education and Training Awards Commission has recently been set up by the National Qualifications Authority with a quality assurance role for TVET including TIT. However, this body will focus on the development of quality through standards and qualifications rather than through delivery. The Bahrain Teachers College (BTC) has its own internal processes of quality assurance and, in addition, has participated in an international quality assessment exercise for initial teacher education operated by the National Recognition Information Centre for the United Kingdom (UK NARIC). The College is also subject to accreditation processes in relation to the international qualifications that it offers. Furthermore, the BTC is subject to the quality assurance processes operated for all higher education in Bahrain, which includes inspection by the Higher Education Review Unit. In Saudi Arabia, the Bachelor of Engineering Technology (BET) programme, which the Trainer Training College (TTC) offers, is internationally accredited by the German accreditation agency ZeVA.¹⁸ In addition, the TTC is subject to the quality assurance processes operated for all technical and vocational training providers working in Saudi Arabia, which include inspection by the Saudi Skill Standards (SSS) agency.

¹⁸ <http://www.zeva.org/en/program-accreditation/>

There is no internal or external quality assurance of PS-TIT in Lebanon.

In general, quality assurance for TIT represents an opportunity for improvement and for learning between countries. There may be opportunities for sharing good practice and tools. Quality assurance for PS-TIT is more likely to be implemented through standard higher education procedures than outside of universities, for example for instructors.

Reform

Morocco has seen recent extensive reform to TIT. Eight *Ecoles Normales Supérieures* have been replaced by regionally based *Centres Régionaux des Métiers de l'Éducation et de la Formation* (CRMEFs – Regional Centres for Education and Training Professions) which also have some degree of sectoral specialisation. An occupational standard for the TVET workforce has been designed and used to inform an extensive re-designing of PS-TIT programmes. Experiments have been carried out in the delegation of TIT control to TVET centres in an experimental programme which involved collaboration between the ministries of tourism and training.¹⁹ Extensive reform to the system of professional training system is planned. In Algeria, occupational standards have been developed but are not yet in use. In Egypt, the establishment of the Professional Academy of Teachers (PAT) in 2008 has led to greater coherence in regulation and standard-setting with respect to TIT (see appendix A). In Jordan and Saudi Arabia, new TIT institutions have been established. In Lebanon, a new strategy has recently been published which, if implemented, will result in big changes to TIT.

With the exception of Saudi Arabia and, to a lesser degree, Morocco, TIT has not been a major focus for reform although TVET has been a focus for policy-making and initiatives across the Arab world (with the exception of Lebanon).

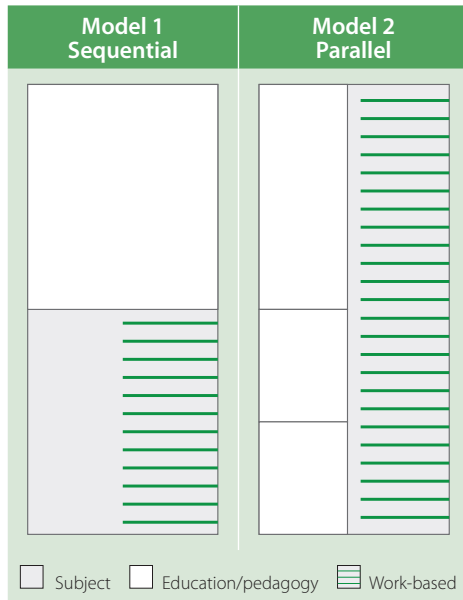
To summarise, governance of PS-TIT is relatively effective where it is relatively unified so that the planning, funding, quality assurance and development of PS-TIT across different sectors and institutions are coordinated. Authoritative and well-resourced governance agencies can, if they develop a vision, as for example the TVTC in Saudi Arabia, drive forward the development of TVET and TIT. Secondly, governance of PS-TIT is more effective if it includes representation of stakeholders: employers, trade unions, professional associations of teachers and trainers, training institutions, providers of PS-TIT. As reported above, there is evidence of this kind of representation across the Arab region, but not all stakeholders are represented, the extent to which stakeholders can influence decisions is sometimes limited and, in some cases, TIT is relatively neglected as a field for joint approaches. This means that the development of TIT does not always adequately address the needs of key stakeholders: teachers and trainers; training providers and enterprises. Lastly, effective governance depends upon reliable and relevant information. There are gaps in what is known about the profiles of teachers and trainers, their competences and their performance; this limits the capability of policy-makers and local managers to make the best decisions. Also, it is important to recognise that different approaches to TIT have different implications for governance; in particular, strategies that rely more on markets require different kinds of governance than strategies that focus upon public provision.

¹⁹ This experiment is currently suspended due to lack of funding.

The structure of PS-TIT

It is possible to distinguish between two different general structures for PS-TIT: sequential and parallel. This typology is illustrated in Figure 1.

Figure 1: Model of alternative structures for TIT



Source: National Reports

The *sequential* model is common for the initial training of technical teachers across the Arab region (see Table 6). Students undertake a subject-based degree at a university either to Bachelor, Masters or higher level followed by a separate certificate in education. This certificate may also be delivered by a university (as in Egypt), or it may be delivered by a specialist teacher training institute, requiring full-time (Morocco, Algeria) or part-time (Tunisia) studies. In the case of Tunisia, PS-TIT could be described as segmented, as well as sequential, because one phase of learning is divided between different institutions.

In Oman, TIT basically has a reversed, sequential character. Training starts with teaching practice in a TVET provider institution and work experience in an enterprise and then progresses to an (overseas) higher-education institution (HEI) to complete an MA degree which combines subject and pedagogic elements.

Parallel TIT programmes, by contrast, combine subject and pedagogic elements within a single programme and, usually, a single qualification. The merit of parallel programmes is that they integrate pedagogic and disciplinary knowledge. In Egypt, a significant proportion of technical teacher training takes the form of four-year parallel programmes at universities, particularly in the sciences. Four-year parallel programmes of this kind are also offered by the Applied University of Balqa in Jordan (on a relatively small scale) and by specialist training institutes in Lebanon (IPNETs). Training of technical teachers in Morocco has been recently reformed and it represents a hybrid between parallel and sequential modes. Students follow a university degree which combines disciplinary and pedagogic elements (including teaching practice) and then progress to a specialised pedagogic programme delivered in regional training institutes (CRMEFs) where 60% of training takes the form of teaching practice in technical institutes or schools. In comparison with other provision across the Arab region, the Moroccan model provides a large pedagogical element as part of preparation for technical teaching and makes space for extensive teaching practice. Furthermore, it is supplemented by two (rather than the normal one) years of probation after recruitment.

Saudi Arabia provides two different pre-service training routes, both combining subject and pedagogical elements: 1) a four-year Bachelors/ Masters programme, including three months training in an enterprise and six months of teaching practice; 2) the four and a half year-King Abdullah

Scholarship Program for the Preparation of Technical Trainers, which includes foreign study and leads to an Applied Bachelor Degree. Both of these two approaches draw on international expertise and recent research: they are designed to graft state-of-the-art TIT onto the Saudi TVET system.

Table 6: Structure of TIT for TVET teachers in ten Arab countries

Country Type of structure	Provision	Teaching practice	Institution
Algeria Higher education Sequential	Candidates may hold a Higher Technician Diploma, a Masters, or Engineering Diploma. They must take a 1 year Diploma at an IFEP after recruitment as teacher	One year of on-the-job training followed by one year of probation	IFEP – Institut de Formation et d’Enseignement Professionnel INFEP- Institut National de Formation et d’Enseignement Professionnels
Bahrain Higher education Sequential	No specialist Bachelor of Education or Post-Graduate Diploma in Education for TVET but there is PGDE for business and ICT	Teaching practice within general Bachelor of Education programme	Bahrain Teachers College working with National Institute of Education in Singapore ²⁰
Egypt Higher education Sequential	1 full-time or 2 part-time years of study after the 1st university degree (4 or 5 years) lead to degree in education issued by university and to employment in schools	Part of the programme	Higher education institutions (HEIs)
Egypt Higher education Parallel	4 years of study lead to joint subject/education degree issued by university and to employment in schools	Part of the programme	Higher education institutions – science and technology faculties
Jordan Higher education Sequential	Ministry of Education provides 3 months of pre-service training to new recruits (usually university graduates) working in schools	n.a	Teachers Training Centre
Jordan Higher education Parallel	4-year combined pedagogic/ subject degree contains both practical and theoretical elements	1 semester teaching practice. No enterprise practice	Applied University of Balqa (National Training of Trainers Institute)
Lebanon Specialist institution Parallel (Not currently offering PS-TIT)	Specialist technical/pedagogic qualification: 4 years of study after Technical Baccalaureate, or 2 years after Higher Technician Diploma or 6 months after Engineering Diploma from HEI	6 months teaching practice but no enterprise practice	Specialist TIT institutions: Instituts Pédagogiques Nationaux de l’Enseignement Technique (IPNET) (3)

²⁰ A Centre of Excellence at the Ministry of Education is planned to develop and design long-term and short-term training programmes for technical and commercial teachers as well as for other clients from the private sector.

Country Type of structure	Provision	Teaching practice	Institution
Morocco Higher education Parallel plus diploma	Combined subject/pedagogic 3-year programme leads to Bachelor's degree followed by 1 year at regional/sectoral teacher training centre (CRMEF) (gives <i>Professeur</i> status) or 5-year Masters followed by 1 year at CRMEF (gives <i>Professeur agrégé</i> status)	Degree includes some teaching practice and enterprise practice. 60% of CRMEF time is teaching placement.	HEIs and regional teacher training centres (CRMEFs)
Oman Higher education Sequential	1 year in TVET provider institution and enterprise followed by 2 years of study for Masters (assistant lecturer) or Bachelors (instructor) at foreign HEI	Teaching practice with mentoring and enterprise practice	Higher College of Technology, Oman and overseas HEI
Saudi Arabia Higher education Sequential and Parallel	4-year Bachelors/Masters programme combines subject and pedagogy – Bachelor of Engineering Technology Recruits top graduates from colleges of technology – builds on post-secondary diploma	3 months teaching practice in colleges of technology and 6 months in enterprises	Teacher Training College (1) operated by GIZ since 2009 3 more colleges planned (2 for women)
Saudi Arabia Higher education Sequential and Parallel	King Abdullah Vocational Programme combines subject and pedagogy: 1.5 years preparation followed by 3 years of study abroad Applied Bachelor Degree Recruits top graduates from colleges of Technology - builds on post-secondary diploma		Preparatory studies and overseas HEI First graduates – 2013
Tunisia Higher education Sequential	Bachelor (<i>Licence</i>), Master, Doctorate in Engineering (3-6 years) followed by part-time training programme during 1-year probation	Teaching practice during probation	HEIs and TVET providers (including schools)
UAE	Most of TVET teachers and instructors are expatriates (mostly from Arabic-speaking countries) and are trained abroad	There are no general requirements for teaching practice ²¹	No specialist institutions for TVET TIT; however, TVET institutions do provide IS-TIT to their teachers and instructors ²²

21 A survey conducted for this research reported that only 10% of a sample of vocational teachers (N= 344) had less than 5 years teaching experience.

22 ACTVET (working with an Australian provider) offers the Australian TAE 10 Certificate IV in Training and Assessment; the Higher Colleges of Technology offer a Finnish Post-graduate Certificate of Higher Education, and the National Institute for Vocational Education offers the UK Preparing to Teaching in the Lifelong Learning Sector (PTLLS).

Source: National Reports

Across the ten countries of the Arab region, pre-service TIT for trainers and instructors working in the workplace or in training centres is limited in extent and duration. This workforce generally has lower academic qualifications than the workforce based in schools. In Egypt, for example, trainers supporting work-based learning obtain their technical skills and knowledge through universities or technical secondary schools or colleges of technology. Once employed in vocational training centres run by the Productivity and Vocational Training Department (PVTD)

they receive around four weeks (120 hours) of pedagogical training to become certified. Table 7 summarises TIT provision for instructors and trainers across the ten countries.

It is reported that there is no such specific provision for pre-service TIT for work-based trainers in Algeria, Lebanon, Oman and Saudi Arabia. In Morocco, the OFPPT does offer some modules for new recruits through its *Centres de développement des compétences (CDCs)* and a national structure is planned for 2020.

Table 7: Structure of TIT for instructors and work-based trainers

Country	Provision	Function	Comment
Algeria – work-based trainers	No specific provision		No legal framework or funding
Bahrain – work-based trainers	No specific provision		
Egypt – instructors	On average 8 weeks of induction training for teachers (who hold a university degree) or instructors (graduates of colleges of technology)	Diploma issued by Ministry qualifies for employment in vocational training centres	Delivered in-service – varies between institutes
Jordan – instructors	The Training and Development Institute provides 3 months pre-service training to new recruits (usually university graduates) employed to work in vocational training centres	Qualifies to work in vocational training centres	Training and Development Institute serves vocational training centres
Lebanon – instructors and work-based trainers	IPNET works with GIZ to provide training for teachers in vocational schools that provide alternance training (dual system)		Specialist TIT institutions: Institut Pédagogique National de l'Enseignement Technique (IPNET) (3)
Morocco – instructors	OFPPT offers some training modules for new instructors through Centres de développement des compétences.	Training modules delivered during employment by sectoral Apprenticeship Training Centres (Centres de Formation par Apprentissage - CFA), for Master of Apprenticeship qualification	National structure is planned for 2020

Country	Provision	Function	Comment
Oman – work-based trainers	No specific provision		
Saudi Arabia – work-based trainers	No specific provision		
Tunisia – work-based trainers	CENAFFIF does provide training for work-based trainers but activity is sporadic and there is a lack of data.		Lack of effective partnership between enterprises and training centres
UAE – work-based trainers	No specific provision		

Source: National Reports

PS-TIT curriculum, pedagogy and assessment

PS-TIT should develop the capabilities of those who will teach and instruct vocational learners. It must therefore build upon the learning they have gained from prior education and training, for example at school and university, and from informal learning in the workplace, in order to develop the competences they will need to teach and train. In practice, not all entrants to teacher and instructor training are likely to have the same initial capabilities, nor will they require the same competences, depending on whether they will work in schools, colleges of technology or in work-based learning. Designing a curriculum, and a corresponding assessment, that reflect both the diversity of trainee teachers and instructors and the diversity of the labour market is challenging. The challenge is increased by changes in the competences required because of new thinking about pedagogy and changes in the knowledge and skills required by employers.

Generalising, we can say that TVET teachers and instructors should have a range of core competences, including:

1. Theoretical, technical or subject knowledge;
2. Practical skills related to a vocational field;
3. Current knowledge of industrial practices and work processes;
4. Theoretical pedagogical knowledge, for example about how students learn best; and
5. Practical pedagogical skills and know-how of pedagogical practice, for example relating to different teaching and learning methods.

In addition, teachers and instructors are likely to need capabilities in assessment, mentoring, management, using IT and other equipment, working with enterprises and other partners.

Further, TVET teachers and instructors need to be able to bring these competences together in their practice and they need appropriate attitudes, values and dispositions to sustain and improve their practice, for example by developing capabilities for further learning and for working in teams.

Some of these competences are best learned in academic institutions while others are best learned through teaching and training practice. TIT, like other professional learning, is best supported by alternating learning-through-doing with learning through theory, research and reflection.

Curriculum

In general, the curriculum and pedagogy of TVET TIT in most of the ten Arab countries are more strongly shaped by academic disciplines than by competences, that is by the capabilities needed to teach and instruct. We can say that, on the whole, the subject-based degree forms the largest part of 'pre-service training' in most (but not all) of the Arab countries discussed in this report. A lack of emphasis on competences in TIT is recognised by experts and policy-makers across the ten countries. Indeed, some of the reforms discussed above are intended to tailor TIT to better match the needs of TVET schools and their students. In this section, we examine curriculum, pedagogy and assessment and how they are shaped.

In Egypt, Morocco, Saudi Arabia and Tunisia there are professional or occupational standards for technical teachers (and for some but not all instructors) which have been informed through consultation with stakeholders. Furthermore, these occupational standards have shaped the development of curricula in TIT institutions. In Morocco, the TIT curriculum for technical teachers has recently been reformed in order to be more in line with the occupational standards, which has led to an increased emphasis on pedagogical, as opposed to subject, knowledge, and more time spent on teaching practice. In a number of countries, Morocco, and Algeria for example, there are regulations about the amount of curriculum time that is dedicated to theory, practical skills and pedagogy for trainee teachers.

However, compared to teachers, the curriculum situation for TVET instructors is generally less developed. Working in partnership with the Canadian Institute for International Development, the Moroccan Ministry for Employment and Professional Development has developed an occupational standard for trainers. However, this occupational standard has not been translated into a qualification nor implemented in practice.²³ In Tunisia, it is reported that there is a lack of such standards and effective quality assurance, which means that these standards cannot guide the implementation of curricula.

23 Competence-based approach, Part B, Certification of human resources: description of tasks and identification of an occupational standard for trainers, February, 2007 – MEFP.

Competence-based TIT in Jordan

It is reported in Jordan that the design of most of the TIT programmes is guided by research carried out in that country by Canadian experts working with the Teacher Development Institute in order to identify professional competences for vocational teachers and trainers. This process has identified 70 competences that can be classified into nine groups of main functions:

1. Prepare for instruction.
2. Deliver instruction.
3. Apply many teaching techniques.
4. Use a variety of teaching aids.
5. Manage students' success.
6. Evaluate student performance.
7. Implement safety.
8. Develop professionally.
9. Meet department requirements.

Interviews carried out in Jordan showed that experts agreed that the role of TVET teachers should be broadened: 'The role of teachers and instructors is changing radically. They are no longer just delivering knowledge and skills. In addition to vocational practitioners, they are becoming curriculum developers, student counsellors, educational and resource managers, ICT operators, coaches and mentors.'

Source: Jordanian National Report

In Algeria there are occupational standards but they are not yet agreed by stakeholders. There is guidance on how much time should be allocated to theory and to skills but the survey carried out for this research suggests that there are concerns that practical skills are relatively neglected. In Jordan occupational standards have been designed but they are not yet operational – so they are not impacting on the TIT curricula.

In Lebanon and Oman there are no occupational standards for technical teachers.

In summary we can say that the development of occupational or professional standards for teachers is in progress for the majority of the countries discussed in this study. At this point, there is relatively limited evidence that these

standards are impacting on the design of TIT programmes. However, there is some evidence of implementation in Morocco and Saudi Arabia. More generally, the existence of professional standards is informing policy discussion, for example in Tunisia and Jordan. Where professional standards do exist, as in Egypt, there are concerns that these standards do not apply to those working outside of the Ministry of Education or in the private sector. In several of the countries examined in this report, there is evidence that the required competences are not in place; for example in Algeria, Jordan, Lebanon, Morocco, and Tunisia concerns were expressed by stakeholders interviewed as part of this research that TVET teachers and/or instructors did not possess the full range of competences required to ensure appropriate provision for TVET students.

Work-based learning in TIT – teaching and enterprise practice

In Egypt, pre-service university-based TIT includes weekly teaching practice and, later in the programme, additional blocks of teaching practice. There are well established processes for assessing this practice. Failure rates are low. In Jordan, real and simulated teaching practice is included. This lasts one semester with the university route and three months at the Teachers' Centre. In Lebanon, trainee teachers undertake six months of teaching practice which is assessed.

In Algeria there does not seem to be extensive teaching of pedagogy; however, trainee technical teachers train on the job and observation of their

teaching does form a part of their assessment. In Tunisia, pedagogical instruction is provided through modules which are studied part-time by probationary teachers. The teaching practice of probationary teachers is observed and assessed.

Engagement of employers and enterprise-based placements are less common than placements in schools or training centres. In Oman (see Box), Saudi Arabia and Morocco work-placements in enterprises are part of TIT and are assessed. However, this does not exist in the other seven countries. In Algeria, Tunisia and Lebanon informants expressed concerns that there were weak links between enterprises and TIT. In Algeria, Jordan, Lebanon and Morocco it was reported that the teachers providing TIT themselves sometimes lacked experience of working in industry.

Industrial placements in Oman

In Oman most TVET teachers and instructors are non-Omani. The government has developed a programme intended to attract new graduates to become Technicians (technical instructors) or Assistant Lecturers in Oman's public sector, post-secondary Colleges of Technology. The recruitment process begins with written tests, interviews and examination in English proficiency. The industrial training consists of a period of up to six months where the trainee is sent for internship to gain specialization-related exposure. The training takes place at large national or international companies that have been identified by the Directorate General of Technological Education. Most trainees are sent to companies that have Ministry of Trade and Commerce classifications of 'Excellent' or 'First'. The trainee is assigned a supervisor from the Higher College of Technology and a mentor from the company where she or he undertakes the training. The training consists of carrying out normal daily work tasks. During this training, the trainee has to submit regular reports describing the knowledge and skills gained. The supervisor from the college visits the trainee at the company to supervise and discuss the progress of the trainee. The Ministry closely monitors the training process to ensure that trainees receive proper training and to assess the ability of the company to train the programme participants. If it is found that the company cannot provide proper training, the trainee will be moved to another company.

The pedagogical/educational training programme takes place after the industrial training has been completed, although sometimes the order is reversed especially if there is difficulty in finding a proper company for the training. Pedagogical training takes place at the Higher College of Technology, which has more facilities compared to the other Colleges of Technology. This also helps the Directorate General for Technological Education to supervise the training process. Although there is no specific mentoring programme, the ▼

▲ Directorate General of Technological Education selects a few senior teachers and appoints them as 'mentors'. The mentee attends classes that are delivered by the mentor, helps in preparing some materials and provides support to students during discussion and tutorials and develops skills in teaching and assessment on-the-job.

After completing the industrial and pedagogical training, assistant lecturers are sent abroad to study for a Master's degree in their area of specialization.

Source: Omani National Report

There is a lack of evidence about the extent to which the current TIT curricula really do reflect occupational standards (if available) and whether they really shape what goes on in TIT (the taught curriculum). In Lebanon it was reported that there was a good balance in TIT delivery between theory, skills and pedagogy. In Morocco it was said that, in general, the new university-based TIT for technical teachers does generate the right competences, although there have been some problems in implementing the reforms (lack of training for trainers and lack of coordination between institutions).

The practical assessment of trainee technical teachers is conducted by inspectors in Algeria, Egypt, and Jordan and this seems to be associated with well-developed evaluation processes. With the exception of Morocco and Saudi Arabia, it is reported that failure rates for teaching practice are relatively low. However, it is difficult to draw conclusions without knowing what standards have been set. In Saudi Arabia, attrition rates in the Teachers Training College are reported to be around one third and failure of teaching practice is said to be 'relatively high'.

Assessment in Egyptian PS-TIT

Assessment in pre-service TVET training is guided by assessment documentation, usually developed from scientific research by professors at education faculties, to be completed by assessors. Assessment judgements are documented and student teachers have the right to discuss the results. The percentage failing this test is not high because assessment is carried out several times during the student teaching period, which lasts for about two semesters, giving trainees the opportunity to prepare for assessment and develop their skills.

Student teaching in schools/TVET centres is a mandatory part of university-based pre-service TVET training. This teaching practice is assessed, and lasts for two semesters in the third and fourth years of study, one day per week and for two weeks at the end of every semester when final assessment takes place.

Source: Egyptian National Report

The practical and pedagogical skills of trainee teachers were said by informants in Algeria to be relatively neglected. Research with trainee teachers at one university in Egypt identified concerns about the curriculum:

- technical content in curricula is not linked to the TVET curricula in schools and training centres; and
- skills development is neglected at the university and equipment is out of date.

Unfortunately, we do not have sufficient evidence to make general judgements about how effectively PS-TIT curricula are delivered in Egypt or elsewhere.

Research

Research may offer a source of innovation for PS-TIT. Saudi Arabia and Bahrain's similar strategies of commissioning international expertise have brought current research on pedagogy and the development of pedagogic capability to those countries. In principle, Lebanon's IPNET is linked to a research centre, but in recent years there has been no actual linkage.

In Morocco the innovative redesign of the university curriculum to create joint subject-pedagogic Bachelor degrees was informed by recent research. On the whole, however, it appears that research is underused in curriculum design for PS-TIT. This may be because research on PS-TIT that draws its findings from parts of the world that are heavily researched, such as Europe and Australia, are not always useful to Arab countries. The challenge is to identify research which is relevant to the policy horizons of countries in the Arab region and to supply findings in a timely and economic manner. Sharing research and evaluation is a potential area for cooperation, since it is clear that groups of countries are encountering similar challenges and, to some degree, share similar institutional and cultural starting points.

A lack of research on TVET generally and TIT in particular has been identified as an issue in countries seeking to develop TVET (for example in southern Africa). This report shows that, in the Arab region, there is an appetite to learn from research in order to inform both practice and policy.

Entry into teaching

Processes for recruitment reflect the underlying pressures of demand and supply in the ten national labour markets for TVET teachers and instructors discussed in this report. Where demand for employment in the TVET workforce exceeds posts, the recruitment process serves to select. At the same time, the entry process functions as a further quality assurance process, which is particularly important where appointments are usually for life. In Algeria, Tunisia and Morocco would-be technical teachers apply to become teachers and only if appointed do they then receive part-time pedagogical training. This means that the planning (and funding) of PS-TIT provision is closely matched to the planning of recruitment. Students must pass their practical and written assessments even if they are not guaranteed a job. They must then complete a probationary period, during which they will be evaluated by their director and an inspector. In effect, gaining a degree and completing the teaching certificate functions as a licence to practice. While the recruitment and employment process is managed centrally, schools and training centres can select the candidates with the best marks.

In Morocco university graduates must pass a test to enter the CRMEF and then pass their Teachers' Certificate in order to seek to become teachers. A further two years' probation plus examination is required to obtain a permanent contract.

Similarly in Egypt, Jordan, Saudi Arabia and Oman qualifications constitute a licence to practice but not a guarantee of employment. In the past, successful graduates of teaching programmes were guaranteed employment. It is reported that when this arrangement was abandoned in Egypt, applications for technical and industrial

programmes at the University of Helwan dropped from 1200 to 200. Trainee teachers at one university education faculty who were interviewed, as part of this research, expressed concern as to whether they would obtain employment.

In Lebanon, by contrast, holders of the higher technical teacher qualification, the Technical Education Certificate (LET), are guaranteed employment as teachers. Once recruited, teachers can be assigned to any school.

In Saudi Arabia and Oman there are shortages of TVET teachers so trainee teachers have excellent opportunities of gaining employment.

Access issues

In most of the Maghreb and the Mashrek countries, access to PS-TIT is relatively easy for those who complete academic secondary education successfully: it is relatively easy to gain a place on a suitable degree programme if individuals can afford to pursue higher education. Progressing through TIT into employment is more difficult and gaining access to a permanent contract in a desirable location even more difficult. In general, there are no fees for TIT and modest allowances or bursaries are paid. In Jordan, it is reported that there is an excess of places on TIT programmes and that gaining a place is relatively easy. In Algeria only recruited, salaried teachers undertake PS-TIT. It is estimated that applications for posts exceed the number of vacant posts by a factor of four. In Saudi Arabia and Oman, high-status, well-funded elite TIT institutions have been set up which are heavily oversubscribed. Oman's TIT programme, which involves an MA abroad, is oversubscribed ten-fold.

Part-term and fixed-term contracts give employers flexibility; for example, head teachers have discretion to appoint staff on non-permanent contracts in many countries. However, these arrangements could have negative effects upon quality as qualifications and salaries for non-permanent staff are lower, for example, in Tunisia.

Practical teachers in secondary vocational or secondary technical schools are not required to attend PS-TIT (Jordan, Egypt) though general teachers and teachers of theory are.

Gender balance in the TVET workforce is biased towards men across the Arab region. In general, women represent about one third of TVET teachers and instructors though this varies between vocational sectors. Gender equity is said not to be a problem in Lebanon and Oman (where women form approximately 50% of the TVET workforce), but differences remain in their participation sector by sector. In Saudi Arabia, new all-female institutions are being established in order to increase the opportunities for women in the TVET profession.

Given that there is an excessive supply of graduates seeking to become technical teachers in most of the ten countries, it is not surprising that there is little encouragement for experienced professionals from the world of work to train as TVET teachers. In European countries, such as England and Germany, such recruits bring extensive industrial experience to the TVET workforce, and it is this experience which is said to be lacking in some Arab countries. In Algeria, work-based trainers, without degrees, cannot train to become teachers and instructors except as part-timers or if they are trainers for traditional crafts.

In Oman, experienced professionals can train to become 'instructors'. In Lebanon, experienced professionals with a Higher Diploma (below the level of a Bachelor's degree) can enter TIT to gain a teaching qualification. In general, however, experienced professionals cannot become TVET teachers or instructors unless they have a Bachelor's degree, and it is unusual for instructors or assistant teachers to acquire Bachelor's degrees through part-time study while on the job.

In general, we can conclude that PS-TIT has not received as much interest from policy-makers as other components of TVET. In Algeria, Jordan, Morocco and Tunisia the sequential system of first obtaining a subject-based degree, followed

by a year's pedagogical training, dominates. In Egypt, Oman and Saudi Arabia a parallel system operates currently (in Lebanon such as system has operated in the past). In the Gulf, many TVET teachers are expatriates. There are concerns about the relevance of the TIT curriculum, the lack of appropriate teaching practice and a lack of connection with enterprises and current working practice. Quality assurance of TIT provision is generally underdeveloped. These are much the same concerns as we might find with respect to PS-TIT in many other countries in the world. However, it is probably fair to say that the degree of concern about performance is generally high in the Arab region.

In-service teacher and instructor training (IS-TIT)

IS-TIT includes all of the training or professional development that teachers, instructors or trainers receive during their employment. It may serve to improve their knowledge or skills, to update or refresh what they have already learned or it may serve to equip them to teach a new curriculum, new module or new competence. Alternatively it may address new processes, for example new pedagogical approaches, new forms of assessment or reporting. IS-TIT is sometimes known as continuing professional development, or in-service training. It can be delivered through various modes: residential programmes, placements in industry, mentoring, distance learning.

Provision of IS-TIT

The predominant model for the delivery of IS-TIT is one where the central training agency either supplies IS-TIT programmes itself or commissions other organizations, public and/or private, to provide them. Where funding is allocated to a national TIT agency, which also functions as the major provider, for example CENAFFIF in Tunisia, this can lead to the perception that the agency in question is not really responsive to the needs of IS-TIT users due to its monopoly position. Similarly, IPNETs in Lebanon are virtually the only national provider of IS-TIT although international agencies such as GIZ do contribute, as well as

occasionally local enterprises. In Algeria, the INFEP is the funding agency and also, with the regional IFEPs, a main provider of IS-TIT. However, it may also commission IS-TIT provision from universities. In these cases, INFEP assures quality of commissioned services through a service agreement.

In Egypt, the Professional Academy for Teachers (PAT) functions purely as a commissioner,

contracting accredited training centres, including universities and private organizations, to supply IS-TIT. PAT assures quality provision through a system of accreditation which lays down standards for provision. However, IS-TIT for other parts of the TVET system (PVTD, TOMOHAR, Colleges of Technology) is provided differently: for example, PVTD has its own institute (Staff Development Institute), which is a monopoly supplier of IS-TIT to vocational training centres.

International TIT in UAE

The UAE draws upon international expertise to provide both PS-TIT and IS-TIT. TIT is the responsibility of the training institutes that employ teachers or instructors. At the Abu Dhabi vocational education and training and STS training institutes, 111 teachers were identified to participate in a programme offering the Australian TAE Certificate IV in Training and Assessment. Participants included new recruits and existing teachers judged to require additional training. The programme was delivered by a training company based in Australia: delivery included face-to-face, self-study, on-line and school based modes.

As of 2013, the National Institute for Vocational Education (NIVE) will be enrolling its entire staff in the Preparing to Teach in the Lifelong Learning Sector (PTLLS) programme. This leads to a UK teaching qualification at Levels 3 and 4, which is an entry qualification that allows progression to the Certificate in Teaching in the Lifelong Learning Sector.

In both of these cases, international TIT programmes have been selected because they complement the international curriculum offered by the training institutions concerned. In both cases there is a strong emphasis on the development of pedagogies that motivate and engage learners.

Source: UAE National Report

In a number of countries, there is an aspiration on the part of government to work more closely with the private sector, either by supporting and regulating private sector provision or by private-public partnerships, in order to develop training and the training of trainers. In Morocco, for example, an independent higher training institute has been set up, reporting to a board on which

both the government and the industrial sector are represented (see box below). In Tunisia, private training institutes are entitled to access IS-TIT programmes offered by the CENAFFIF; however, in practice this does not seem to happen very much, partly because private institutes make extensive use of part-timers who have gained their training working in the public sector.

Public-private partnership in Morocco

In Morocco, the planning for IS-TIT for teachers and instructors working in the textiles and clothing sector has been delegated to a TIT institution which has the form of a public-private partnership. The Higher Training School for Textiles and Clothing is a private limited company managed by a board that includes departmental and sectoral representatives.²⁵ The Training School has developed its own procedures for recruiting both trainers and trainees, and makes an assessment of the training needs of current teachers and trainers. It offers both technical and pedagogical initial training for teachers and instructors, and provides programmes leading to diplomas and also offers diplomas through the recognition of prior achievement. This experiment is regarded as successful with regard to meeting the needs of potential teachers and training providers and it has also reduced the cost of provision for the state as individual trainees pay one third of the cost of their training.

Source: Moroccan National Report

International agencies contribute to IS-TIT in many countries, sometimes they provide IS-TIT directly and sometimes they work in partnership with local providers. However, like national providers, they usually follow a public-sector supply model: services are provided free to consumers but it is the provider that determines what services are supplied. There is criticism that this approach means that provision may not match local needs (Algeria) or may not be sustained (Lebanon). In Algeria, the EUR 109 million MEDA programme (supported by the EU) aimed to achieve strategic reforms in TVET and its connection to the Algerian economy and society. Improving the TVET offer and, in particular, supporting the training of trainers through the development of new resources and better information has been one dimension of the programme, but other key elements, such as management, social partnership and responsiveness, are also being addressed. So far, however, it is reported that these reforms have not met their objectives.²⁴

Another problem is that, on occasion, provision through international agencies does not appear to be well-integrated into national provision which might lead to underused resources and a failure to sustain local capacity. For example, in Jordan there is currently an internationally supported project to provide professional development to several thousand TVET teachers. However, the National Training of Teachers Institute at the Applied University of Balqa, which was developed for the purpose of providing IS-TIT to TVET teachers, is currently underused: enrolment in courses is so low that they are no longer cost effective.

In general, it appears that the commissioning model of IS-TIT increases the range and responsiveness of supply and provides opportunities for quality assurance. Where public agencies control funding and monopolise the supply of training for trainers, this can give the impression that the training offer is not responsive to need. Where public agencies work in partnership with international development agencies, the private sector or sector organizations, there is the benefit of making new approaches or expertise available. So far there has been little experience of empowering TVET centres to make them into commissioners or purchasers of IS-TIT.

24 ESITH (*Ecole Supérieure des Industries du Textile et de l'Habillement*) was founded 1997. Trainees pay one third of the costs of each programme and the balance is paid by the state. In consequence, the cost of this form of IS-TIT is lower for the state than other forms of IS-TIT.

Sharing experiences in IS-TIT provision from within the Arab region and beyond would help to inform policy-makers about how institutional and supply relationships might be developed to improve responsiveness, accountability and efficiency.

Planning and needs analysis

It is desirable that the planning of IS-TIT serves national goals for workforce development and that there is coordination and accountability across the system, which implies some kind of national planning. At the same time, planning and delivery should be informed by an up-to-date needs analysis, which requires that accurate information is communicated to the centre or that some decisions about IS-TIT are delegated to local or regional levels, where the training needs are known.

Saudi Arabia has a strong commitment to IS-TIT for TVET teachers and trainers. The TVTC plans provision centrally. A yearly budget of around EUR 23 million is dedicated to IS-TIT (from a total annual TIT budget of EUR 43 million).²⁵ The provision of IS-TIT is designed and planned on the basis of the occupational standards and, it is reported, upon a needs analysis of the workforce. This commitment to the supply of IS-TIT is matched by an entitlement of 33 days per year of IS-TIT per TVET teacher, a level that far outstrips the rest of the Arab region and matches the highest levels in Europe, for example, in the Netherlands.

In Morocco, funding and planning of IS-TIT is divided between several training organizations.

The different national training organizations plan and provide IS-TIT, coordinating, where appropriate, with international agencies that make a significant contribution to funding. The design of provision takes into account interest expressed by trainers and by trainers of trainers (working in the CRMEFs and CDCs); however, it does not appear that information relating to needs is collected systematically. To a large degree, the offer is determined centrally and teachers are expected to take up the offer.

In Egypt, the Professional Academy for Teachers (PAT) produces the development plan for IS-TIT. The plan is informed by evidence collected from the Ministry of Education and the Inspectorate, through feedback from centres providing IS-TIT and inputs from stakeholder representatives on PAT's Board. However, this plan does not cover the whole TVET workforce: other ministries plan IS-TIT for Colleges of Technology, PVTD and TOMOHAR. There is also bottom-up needs analysis: some schools and some specialist TVET providers (Colleges of Technology, PVTD and TOMOHAR) prepare annual plans for staff development according to their assessment of staff needs. In Egypt, each teacher is entitled to 6.25 days of IS-TIT per year. However, it is reported that there are substantial delays in delivering this entitlement.

In Jordan, funding and planning responsibilities are delegated to the main providers of IS-TIT: the Teachers Training Centre (Ministry of Education), NTTI (Balqa Applied University) and the Trainer Development Institute (serving vocational training centres). Individual TVET institutions are expected to work out their training needs (competences and volumes), and IS-TIT providers are expected to take these needs into account when planning provision.

²⁵ This figure does not include the cost of the King Abdullah Scholarship Program.

In Algeria, a budget (approximately EUR 100 thousand in 2013) for TIT is allocated to the institution that is responsible for designing and delivering TIT – the National Institute for Training and Professional Education (*Institut National de la Formation et de l'Enseignement Professionnels* – INEFP). An occupational standard for TVET teachers exists and it is reported that this helps to inform the design of IS-TIT. However, there is no needs analysis to inform the design and planning of the training offer. Some foreign and international agencies (for example, the EU through the MEDA programme, 2003-2010) provide IS-TIT for TVET teachers: however, this provision is also not informed by needs analysis. In Lebanon, it is reported that there is no formal planning, needs analysis or research to inform the design of IS-TIT. There is no minimum entitlement to IS-TIT in Algeria or Lebanon.

In Oman, IS-TIT is the responsibility of the Ministry of Manpower. There is no plan or dedicated budget for this provision nor any research on what is required. However, it is recognised that there is a need to review the IS-TIT needs of TVET providers and industry.

In Tunisia, planning and funding are centrally directed by the Ministry of Employment and Vocational Training, which also sets overall sectoral priorities. However, the different public sector training agencies (and the agency representing private training institutes) are asked to communicate their training needs to CENAFFIF and these needs are taken into account when the plan for IS-TIT is produced. Decisions about the design and volume of IS-TIT are largely delegated to the monopoly public sector supplier, CENAFFIF. However, the dominant training provider, the *Agence Tunisienne de la formation professionnelle* (ATFP), has a permanent council on which

stakeholders are represented. Also, since 2008, sectoral bodies have been given a voice in IS-TIT with respect to technical training. In consequence, there is some stakeholder and bottom-up signalling of needs to CENAFFIF.

Across the Arab region, policy-makers are seeking to find ways of channelling funds to support national IS-TIT priorities while, at the same time, building in effective needs analysis that is best understood at local level. In addition, NGOs and international development organizations intervene to fund, usually in partnership with local agencies, particular forms of IS-TIT. Policy-makers are looking to develop ways of linking the provision of IS-TIT to the assessment or researching of training needs. One strategy to achieve this has been to empower sectoral bodies and to engage them at policy level (e.g. Tunisia, Algeria, Saudi Arabia) or at institutional level (e.g. Morocco). Another strategy has been to develop and implement occupational standards for instructors (e.g. Morocco, Jordan, Tunisia) and trainers (Morocco) and to use these to help shape the design of IS-TIT. These developments represent an important opportunity for learning for the region: it would be valuable to review the progress of these reforms to discover how well they are working over the next few years.

Assignment of IS-TIT to teachers and instructors

Spending on IS-TIT will not be effective or efficient without good matching of particular IS-TIT programmes to particular teachers according to their needs and system priorities. IS-TIT should be effectively linked to the evaluation of TVET teachers and instructors, so that training can be targeted to where it is most needed. In some but

not all countries discussed in this report, processes exist to target IS-TIT where it is needed, but we lack information to judge how effectively these processes are working.

In Algeria, some IS-TIT is compulsory for all TVET teachers and instructors (excluding work-based trainers); in addition, annual assessments by inspectors may generate recommendations for particular IS-TIT programmes in order to bring about particular improvements. However, there are currently no explicit criteria guiding inspection and inspection is reported to have an 'administrative' rather than 'substantial' focus. In Tunisia, an inspectorate for TVET has been recently established, but it is not currently sufficiently operational to help identify training needs. In Egyptian technical schools, inspectors and school managers assign IS-TIT, though teachers are consulted. Furthermore, there are national standards for professional development which give teachers (but not all TVET teachers and instructors) an entitlement to IS-TIT. IS-TIT is often a condition for promotion and may be mandatory where there has been a change in curriculum.

In Lebanon, IS-TIT is not assigned centrally. However, provision by IS-TIT providers and application for places by TVET providers must both be approved by the central agency controlling TVET, the DG-VTE. It is reported that, in the absence of transparent plans for IS-TIT, it is difficult to judge which programmes will gain authorisation. Also, it is reported that providers and consumers of IS-TIT do not understand why some proposals are successful while others are not, and that they feel frustrated because they cannot participate in IS-TIT which they judge valuable. There is no minimum entitlement for IS-TIT.

In Morocco, there is a system of skills assessments which informs the professional development offer for TVET instructors nationally and the assignment of professional development to individuals (see box below). Trainers may be instructed to undertake IS-TIT as an outcome of their annual assessment.

Needs analysis and IS-TIT for Instructors in Morocco

The Centres for the Development of Competences (CDCs) in Morocco organize theoretical and practical skills assessments for TVET instructors employed by the largest single government department with a training role, the OFPPT. These assessments are analysed in relation to the modules that the instructors teach and would like to teach. The assessments lead to individual development plans which inform the offer of professional development. It is planned to give the instructors the opportunity to take the skills assessment every third year. The average provision is reported to be eight days per trainer and the annual total number of training days is between 3000 and 3500. Each training event lasts for an average of five days with assessments before and after to measure impact of the training, and successful participants gain internal certification that authorises them to deliver a particular training module.

Where reform of the curriculum has been carried out - for example recently for the qualifications serving the textiles, clothing and fashion sector through the MEDA programme - professional development programmes are offered to update instructors' competences. Local CDCs will sometimes supplement their own trainers of trainers with regional expertise in order to meet the needs of instructors. Subject to availability, CDCs can also draw upon international expertise. ▼

▲ However, concerns have been raised that the assessment of needs focuses on capability to teach particular modules rather than on the overall capability of instructors, and that there is a failure to encourage self-assessment by instructors or to take account of the needs that instructors themselves diagnose. CDCs have expressed concerns about instructors failing to turn up for off-site training sessions. There is no evaluation of the impact this professional development has on performance either at the level of training centres or for the careers of instructors.

Source: Moroccan National Report

In Saudi Arabia, the assignment of IS-TIT may arise through staff appraisal or through individual choice. Undertaking IS-TIT is necessary to gain promotion. In Jordan, supervisors and training officers observe teaching and training and meet with teachers and enterprises. The work of TVET teachers is appraised and from this data, skill deficiencies are identified and appropriate programmes provided.

Access to IS-TIT varies for different types of teacher and instructor.²⁶ It is reported that teachers and instructors who have part-time or fixed-term contracts are not eligible or have less access to IS-TIT in some countries, for example, Tunisia. In Egypt, there is only limited IS-TIT for instructors employed in technical secondary schools to teach practical skills. These instructors are usually themselves secondary school graduates with very limited PS-TIT.

In many of the countries studied, at least some of the processes, the expertise and the institutions required to assess training needs and to plan, design, assign and deliver IS-TIT provision are in place. Inspection, skills assessment, occupational standards, recognition of professional development, staff appraisal can all be found to some degree – although they are not all present and not always fully operational or effective. In

most cases, the following elements still need to be developed further: systematic formal certification of professional development; encouragement of a professional ethos that supports professional development; and effective systems for making professional development responsive to the needs of the TVET system and TVET teachers and instructors.

Character of programmes and certification

In Bahrain and Oman there is relatively little IS-TIT that is tailored to the needs of TVET teachers and instructors. In Bahrain, for example, teachers in technical schools participate in the compulsory in-service professional development programmes which are intended to promote continuous professional improvement and are linked to the 'cadre system', that is the hierarchy of certificated career grades which structure the teaching career. Elsewhere across the Arab region, TVET teachers and instructors are offered a mix of specialist vocational or technical programmes, transverse programmes (e.g. relating to IT or English) and pedagogical skills. Certification is relatively under-developed – often consisting only of a certificate of participation. By contrast, it is common in Europe, for example in Finland and England (see Box below), to have some kind of overarching accreditation for IS-TIT. In the

²⁶ For work-based trainers see below.

best cases, courses are systematically linked to post-graduate qualifications in higher education, for example teachers may accumulate credits

towards some kind of Masters in Education. Such an arrangement adds to quality assurance and the status of IS-TIT.

Credit accumulation in England

The Credit Accumulation and Transfer Scheme (CATS) was adopted in the mid 1990s by 80% of UK higher education institutions. Over time it has become well understood, broadly accepted and very widely used across all kinds of higher education programmes in the UK, particularly for professional education.

The CATS system means that short- or medium-length professional development programmes carry a value in credits. If professional learners accumulate a target number of credits at a given level, they are able to gain formal recognition at that level. For example, a Diploma of Higher Education (Level 5 in the UK Framework for Higher Education and the EQF) requires 240 credits, while a Master's degree requires 180 credits at level 7 in the Framework for Higher Education Qualifications.

It is possible for teachers, instructors and trainers to take short and part-time courses, which they can undertake in conjunction with their professional commitments, and accumulate credits over time to gain high profile qualifications, such as Bachelor's or Master's degrees.

For example, the University of Warwick is currently offering a 2-day programme for practitioners in the lifelong learning sector to develop their skills in observation and feedback. The programme is designed around the practice of observation in a teaching institution. This programme is intended to develop capacity in teaching and training institutions to support improvements in teaching and learning. Internal quality assurance of teaching and learning has been established as a tool for institutional improvement. This short programme is worth 10 credits at Level 5.

Source: University of Warwick website

Short programmes exist in Saudi Arabia. However, it is also possible for TVET teachers to follow IS-TIT courses that, taken together, form an integrated Master's programme addressing technical skills, pedagogy and leadership.²⁷ In Egypt, IS-TIT usually takes the form of a several day programme spread over a few weeks. Different programmes are offered dealing with subjects such as technical theory, pedagogy, new curriculum or leadership. Usually they are delivered off-site. PAT provides

nationally recognised certification for accredited programmes. Sometimes programmes can also lead to higher education (HEI) diplomas. By contrast, IS-TIT for instructors working in PVTDS only leads to certificates of participation. The Bahrain Teachers' College provides an extensive leadership programme at certificate, diploma and advanced diploma levels for professional development. In addition there is a MA in Continuous Professional Development Leadership which is intended to develop the capability of teachers to deliver CPD in their own schools. All these programmes are offered to both general and vocational teachers.

²⁷ The Master of International Vocational Education and Training (MIVET) is delivered in partnership with a German university.

The introduction of a new curriculum may require a programme of IS-TIT in order to prepare instructors to teach it, as was the case recently in Tunisia. The training was organized by the main public training agency (ATFP), sector by sector. In Jordan, IS-TIT programmes may address pedagogy, occupational updating, foreign languages and ICT. There is no national system of certification, but some programmes lead to HEI certification. There is scope for holders of Bachelor of Science degrees to progress, through part-time study, to a Master, and for teachers holding community college diplomas to gain university degrees. In Morocco, IS-TIT takes the form of short, occasional courses, at best amounting to around five days per annum. Currently there is only a certification of participation. There is an aspiration within OFPPT (the largest training agency serving industry and services) to raise the entitlement to eight days per annum and to link this to a competence test that teachers and instructors would take every third year. In Lebanon, IS-TIT provision is described as 'sporadic'. However, some IS-TIT is well regarded, such as the programmes provided in partnership with GlZ, supporting instructors working in the dual system, and with the *Institut Européen de Coopération et de développement* (IECD), aiming to equip teachers with a competence-based approach for delivering a technical baccalaureate in electronics. In Algeria, IS-TIT typically takes the form of off-site residential sessions, usually lasting one week and occasionally two weeks. The IFEPs often encounter problems in securing attendance for courses which may lead them to postpone or cancel them. Furthermore, attendance is reported to be around 60% of courses registered over the last three years. This may partly be

due to difficulties in releasing teachers from their teaching duties, but it is thought also to be a consequence of a low valuation of IS-TIT programmes that are not certificated and are not judged to support career progression.

In Tunisia, CENAFFIF offers instructors a range of modules, for example 'Planning a sequence of training', 'Initiation into ICT'. Most of these modules require 25 hours of learning, while technical teachers participate in extended 25-hour modules, addressing such subjects as pedagogy, ITC, English and technical knowledge. These modules are usually delivered residentially at CENAFFIF's central training centre. In addition, school inspectors design and deliver training for teachers of pre-vocational programmes at the upper primary level. Programme design takes into account Ministry of Employment and Vocational Training objectives and what has been learned from inspection.

Since 2009 there has been an emphasis in Tunisia on developing instructors' experience of the world of work. The public training centres are expected to organize a professional placement in an appropriate enterprise for new recruits. However, it is reported that this does not always take place because of the weak cooperation with enterprises.

In Saudi Arabia, continuous professional development (CPD) includes partnerships with private trainers, overseas study and remote learning. As already mentioned, schemes involving foreign agencies are well-regarded in Lebanon and Jordan. Overseas study is popular with teachers and instructors. Inevitably, perhaps,

there are some concerns that there are insufficient opportunities to study abroad or that there is unfairness about the way limited opportunities are assigned (Tunisia). Partnerships with international

corporations can be a means to provide training locally that meets international standards (see box below).

Vendor Certification through public-private partnerships

Public-private training partnerships are relatively common in the Gulf but less so elsewhere in the Arab region. In 2012, OFPPT and Microsoft signed a partnership agreement to create a 100 Microsoft IT Academy in Morocco that will issue 60,000 certificates over three years. The agreement is based on training with Microsoft software and Microsoft's Alliance Educational Programme. Both trainees and by trainers can access the programme. The partnership is intended to support regional and national developmental goals in Morocco, including aspirations with respect to capturing 'off-shoring', to provide enterprises with qualified personnel, and to increase ICT training capacity.

It is likely that Microsoft and other transnational companies are exploring comparable partnership arrangements across the Arab region. Sharing learning about such agreements and their development could be of great value in ensuring that such opportunities are fully exploited.

Source: Moroccan National Report

It is increasingly recognised that the quality of leadership in education is critical to change and improvement. In Algeria, Egypt, Lebanon, Saudi Arabia and Tunisia there are mandatory IS-TIT programmes for heads of TVET institutions. Saudi Arabia offers an integrated programme of IS-TIT – including elements relating to leadership – which leads to an MA. In Tunisia and Algeria there is a policy shift towards providing greater autonomy for TVET institutions, which may be leading to greater investment in the development of institutional leadership capability. In general, IS-TIT is said to be driven by themes or subjects rather than linked to institutional development in TVET institutes. The implication is that IS-TIT is not particularly valued by TVET institutes and may not connect very closely with priorities or practices in the workplace. In Morocco, for example, there has been extensive reform of the vocational curriculum in secondary schools and technical

lycées, a call for new pedagogy and for better use of new media and equipment. According to the Moroccan National Report: 'To anchor this reform it is necessary to support actors to implement these changes at central and regional and local levels. Above all, teachers, the principal actors of pedagogic innovation, should be supported...' So far, however, reform appears to have been driven from the centre, rather than delegated to the leaders of vocational schools and technical *lycées*.

By contrast, research carried out across Europe suggests that IS-TIT is particularly effective when it is closely associated with priorities set by institutional leadership, who not only endorse the messages of IS-TIT but provide support to implement new approaches and, where appropriate, monitoring to overcome inertia and resistance.

In general, IS-TIT for teachers and instructors addresses both specialist vocational and pedagogic themes. IS-TIT has been used to support curriculum reform (for example in Tunisia and Saudi Arabia) and also to promote improved pedagogy and other transverse skills in most countries discussed in this report. It is sometimes used to update teachers on developments in industry. At this point, it is difficult to make judgements about the adequacy of IS-TIT on the evidence available. However, in some countries in the Arab region there are issues about poor attendance of IS-TIT (for example, in Algeria) or its availability (e.g. Oman, Lebanon). More generally, IS-TIT is driven by central priorities and there do not appear to be mechanisms to link it with the development or improvement plans of TVET institutions. This means that there is not a great emphasis on the role of managers and leaders of TVET institutions in relation to IS-TIT with the consequence that teachers and instructors may not be released to attend IS-TIT, and that TVET institutions do not play a large role in shaping IS-TIT or make use of it to meet institutional goals.

IS-TIT for work-based trainers

IS-TIT for work-based trainers is under-developed across the Arab region: this appears to be partly because there is relatively little provision and partly because work-based trainers are not able to access what provision there is. In Algeria it is reported that there are a number of training offers but that satisfaction is sometimes low because training is not considered to be well-connected to realities of the workplace. In general, in Algeria,

there is the belief that there is weak coordination between providers of work-based IS-TIT and enterprises. In Egypt, the Staff Development Institute provides training for enterprise-based tutors (Moshref) working with the PVTD. In Lebanon and Algeria, international development organizations have provided training for trainers within the dual system. There is no reported IS-TIT specifically for work-based trainers in Oman and Saudi Arabia.

In Jordan, the Training and Development Institute has increased its provision of training services to the private sector. This means that not only is it able to diversify its sources of income but also that it has improved communications with the private sector.

It appears that many trainers working in training centres or work places learn their pedagogical skills on the job if they have not acquired them in another setting. We know that these trainers generally have lower educational qualifications than technical teachers. We also know that there are relatively high drop-out rates for some vocational training programmes and that deficient pedagogical capability may be a contributing factor.

In a number of countries, such as Jordan and Egypt, there is provision of IS-TIT for instructors involved in *alternance*-type (dual system) apprenticeships, but not for the work-based trainers. However, in both Lebanon and Morocco, initiatives for new schemes have been launched in partnership with the German development agency GIZ.

Training Apprenticeship Masters in Morocco

A number of partnerships have been set up in Morocco between the regional Departments for Professional Training, local enterprises and the Higher Training Schools, such as the Higher School for Training in Textiles and Clothing (itself a public-private partnership). These partnerships have led to the formation of Centres for Apprenticeship located within the enterprises. In collaboration with the German development agency GIZ, three levels of apprenticeship across 4 employment sectors have been created for young people aged 15-20, ranging from 6 months to 2 years, depending on their initial qualifications.

An occupational standard for Apprenticeship Masters has been developed and used to design seven, four-hour professional development modules that are offered to work-based trainers and the coaching service used to support their training in their enterprises.

The scheme received renewed financial support in 2006 which has permitted it to develop 100 additional Apprenticeship Centres. It is reported that 6,495 apprentices had completed their training by 2012.

Source: Moroccan National Report

There are less likely to be occupational standards for trainers involved in work-based learning than for those working in schools and colleges. The pre- and in-service training needs of work-based trainers appear to be relatively neglected. There are obvious institutional reasons for this. Nonetheless, there may be some scope for sharing approaches aiming to support instructors in training centres and trainers working in enterprises, and working closely with enterprises and sectoral agencies to develop IS-TIT for work-based trainers.

Quality and recognition

Quality assurance processes and research on the effectiveness of IS-TIT vary between countries. In Egypt there is, as already mentioned, accreditation of providers, assessment of provision, collection of feedback and a post-training assessment of those who receive IS-TIT, as well as a medium-term review of how performance has improved. In Saudi Arabia, providers are accredited, feedback is collected and research is conducted on the effectiveness of IS-TIT programmes. In Jordan, IS-TIT programmes are evaluated, teachers carry out

self-evaluation and follow-up visits determine the impact of IS-TIT. However, systems of evaluation vary from one form of TIT to another and there are no national standards or processes for measurement.

In Lebanon, feedback is collected but there is no measurement of impact. In Algeria there is limited evaluation. In Tunisia, Algeria, Morocco and Lebanon research found that some stakeholders expressed concerns about the quality or responsiveness of IS-TIT. In Tunisia particular concerns were expressed with respect to the capability of the IS-TIT workforce to deliver pedagogical instruction. It was pointed out that many in this workforce do not themselves have experience as TVET teachers or instructors. In addition, it was questioned whether some staff had sufficient experience to offer high-quality leadership training. In Morocco there was uncertainty about whether or not the IS-TIT provided does, in fact, meet the competences required for technical teachers. By contrast, IS-TIT provided through CDCs for instructors is closely linked to the modules that they teach and, in

consequence, was judged to be relevant. However, concerns were expressed that overarching pedagogical competences may be neglected. In Saudi Arabia and Jordan, TVET providers judged IS-

TIT to be sufficient in volume and good in quality. This finding provides evidence for the view that effective processes for the evaluation of IS-TIT are associated with higher levels of user satisfaction.

The TIT workforce

Where TIT is based in universities, the TIT workforce is typically well qualified – holding high academic qualifications. However, there are concerns that much of the TIT workforce does not have extensive industrial or professional experience (for example, in Lebanon, Jordan, Morocco and Tunisia), and that there is little provision to keep professional experience up-to-date. A second concern is whether the TIT workforce has sufficient experience of teaching and instruction to develop the pedagogical capability of teachers and instructors. Lack of appropriate pedagogic expertise is said to be a problem in a number of countries (e.g. Jordan, Tunisia), particularly for technical teachers teaching in school and college environments. In the Arab region, as elsewhere in the world, TVET programmes are often considered to be ‘second best’ options, chosen by students who have experienced failure during academic programmes and academic assessment.²⁸ Technical teachers require pedagogic skills appropriate for these learners; however, where the TIT workforce has a university background and very limited pedagogical experience of their own, they will be ill-equipped to develop these skills in others.

In Morocco it is reported that many of the teachers and instructors responsible for pedagogic instruction in the CRMEFs have worked as TVET teachers (although this is not a requirement), while trainers of work-based instructors in CDCs are likely to have worked as instructors. There were concerns that training agencies might use in-house staff to provide IS-TIT rather than recruiting staff that has extensive experience of teaching and professional practice. In Oman it is required that TIT mentors in Higher Technology Colleges have both pedagogic and industrial experience. In Saudi Arabia, PS- TIT has been commissioned from an international provider, and a high standard for the TIT workforce has been set: two years of industrial experience and four years of teaching experience. In Saudi Arabia it was reported that, in general, the TIT workforce has the right competences to deliver IS-TIT, but not yet sufficient experience to develop leadership.

In Algeria, staff in some regional, sectorally-specialised TIT centres (IFEPs) were said to sometimes lack technical knowledge and experience relating to the vocational sectors they served. Some were said to have pedagogical expertise but lacked experience and technical skills which might reduce the respect they got from experienced trainers. On the other hand,

²⁸ The majority of students entering the vocational track in upper-secondary education in Tunisia is estimated to have experienced 9-11 years of repetition during the course of their prior education.

some staff were said to be highly motivated and realistic about the challenges they faced.

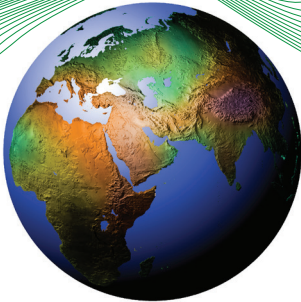
In Egypt measures are in place to quality assure the TIT workforce, for example, teachers who deliver IS-TIT in institutions accredited by PAT are assessed and monitored. Accreditation is not

renewed if the quality of the workforce is judged inadequate. In general, however, measures to assure the quality of the TIT workforce vary with the particular institutions that they work for. On the whole, it can be said that quality assurance of the TIT workforce across the Arab world is under-developed.



TVET in Jordan. © UNESCO

Implications of TIT on quality, equity and relevance of TVET



It is clear from the research carried out for this project that while TIT is an important factor for improving the quality of TVET provision, it is not the only factor. Furthermore, even improved TVET provision may not, in adverse circumstances, bring about desired outcomes, such as improved employment prospects or higher commitment from learners.

Saudi Arabia, for example, has invested heavily in TIT for TVET. Nevertheless there is currently insufficient take up of existing TVET provision by learners. This may, however, be explained by the emergence of relatively attractive academic programmes rather than by poor quality of the TVET workforce. The connection between better TIT and improved TVET outcomes is mediated and complicated by many other factors.

There are a considerable number of reforms to TIT and TVET underway that provide opportunities to explore impact. Reform programmes in Morocco, Saudi Arabia and Bahrain could, in the future, provide valuable evidence. The development of new TIT institutions in Saudi Arabia as well as new TVET institutions may make it possible to track the impact that TIT teachers have on the processes and outcomes of TVET. At this point, feedback suggests that graduates of the new Saudi Technical Teacher College are distinguished by their greater use of modern media and more learner-centred teaching approaches.

The Tunisian National Report suggests that IS-TIT has not been effective at communicating key ideas or changing practice necessary for the introduction of a competence-based approach. This failure is attributed to the experiences and attitudes of those leading IS-TIT, the background values of trainees and methods of evaluation. In sum, IS-TIT in Tunisia has not weakened the traditional adherence to academic disciplines centred around knowledge or encouraged competence models that focus on the application of knowledge in tasks. A survey of 53 trainers working in training centres found that 63% of them expressed a need for mentoring to carry out

competence-based approaches (the percentage being much the same for trainers who had already received training as for those who had not). In this case, it seems that off-site, occasional training has not been effective in supporting on-going innovation, e.g. the improvement of communications between training providers and enterprises.

There is some research which highlights the importance of TIT to TVET reform. Abrahart in 2003 studied TVET in Egypt and stated that ‘the lack of suitably qualified and experienced instructors is probably the over-riding factor limiting the effectiveness of technical and vocational education and training’. Almost ten years later, Zelloth recalled Abrahart’s statement and reported that ‘Since then not much has changed and the capacity of VET institutions remains severely limited. Without substantial improvements in teacher and trainer development it is likely that even with appropriate standards and new curricula, the capacity of the VET system to deliver good outcomes will remain uncertain and questionable.’ This view is also shared by the draft TVET Strategy formulated by the Egypt-EU co-funded TVET reform programme: ‘The improvement in the delivery of vocational competences for employment and citizenship will be achieved only if there is an improvement in the quality, effectiveness and relevance of TVET teaching.’

There is some evidence that pedagogic approaches are developing slowly in countries like Egypt, and more rapidly where a strategy of rapid innovation has been applied, as in Saudi Arabia.

ICT is making an impact on learning, however. In Egypt, for example, the main bottleneck is teacher and instructor capability. In other words, ICT is making additional demands on TIT and TIT has not been able to keep pace with these new demands.

Where countries are investing in rigorous inspection systems in TVET and general education, inspection reports are generating a better understanding of performance and progress in teaching and learning and how these vary within and between schools. In Bahrain, for example, more robust inspections have led to the establishment of a National Qualifications Framework for Teachers and to changes in pre-service and in-service training. Inspections also confirm that effective leadership is closely associated with overall institutional success.

Surveys of satisfaction – with learners and employers – are also useful ways of measuring the success of TVET institutions and, indirectly, gauging the effectiveness of teachers and instructors. In Bahrain, for example, such surveys indicated that privately managed, publicly-licensed TVET schools have high ratings. This suggests that improvements in TVET performance result not simply from raising the quality of the TVET workforce but also from making more effective use of well-trained TVET teachers. Research in Morocco revealed that employers have concerns about the quality of graduates from professional training institutes because they perceive a lack of connection with the world of work, for example insufficient work experience, lack of industrial experience on the part of instructors, and the absence of adequate national quality assurance.

Measurement of attainment of students in TVET institutes is taken by some to be a measure of the quality of TVET generally and of TVET teachers and instructors in particular. For example, in Jordan, less than 50% of vocational-stream students in secondary schools pass the General Secondary Certificate and around 60% of students in community colleges pass their diplomas at first attempt which is said to 'indicate weaknesses in the quality of teacher/instructor performance.'

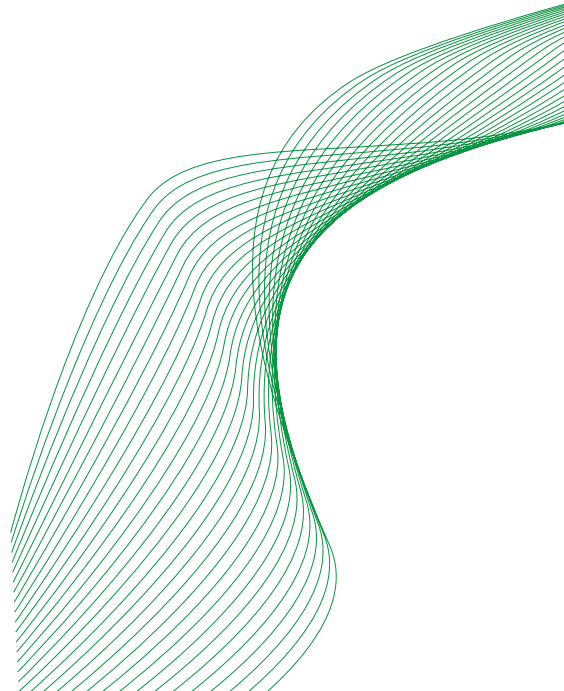
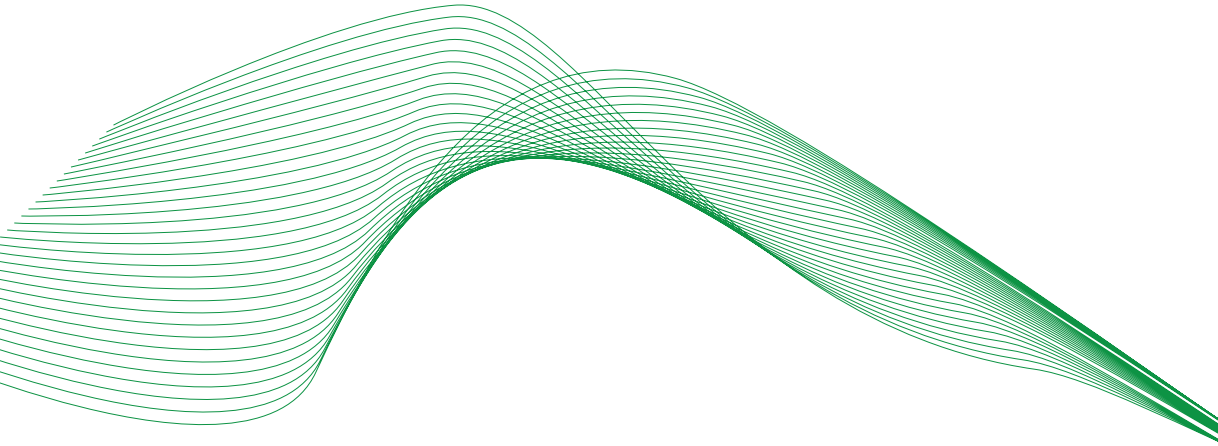
Observation of TVET lessons in Jordan confirm that traditional pedagogy, characterised by frontal teaching, use of the blackboard and an emphasis on the transmission of information is still common. This kind of pedagogy is reported to be standard in UAE and also in Algeria. Indeed, only in countries that have actively sought to introduce more learner-centred pedagogies, such as Bahrain and Saudi Arabia, are other approaches reported. These innovations represent important learning opportunities for the whole Arab region: if learner-centred pedagogies work in the Gulf, they may also work across the region. Furthermore, innovations in pedagogy in these countries could provide opportunities for understanding how TVET institutes, TIT and practices may need to develop if new pedagogies are to be adapted to the varied cultures of the Arab region.

Research on youth unemployment and transition also provides evidence of the effectiveness of TVET. The European Training Foundation's (ETF) Torino process recommends transition studies as a mechanism to measure the effectiveness of TVET. Research undertaken for this project revealed that Egyptian policy-makers and professionals do not really believe that TVET qualifications will

lead to jobs. In this situation, formal certification seems to be the main objective of TVET rather than real competence in the eyes of both teachers and learners. It will be difficult to raise the quality of TVET teachers and instruction in Egypt without, at the same time, increasing the value of TVET programmes and qualifications in the labour market. In Tunisia, it is reported that the unemployment rate for holders of the *Brevet de Technicien Supérieur* rose from 16% in May 2005 to 21% in 2010. Drop-out rates of around one third were reported across Tunisia's largest training provider (ATFP). Even in UAE, where the labour market is generally more favourable, research has identified critical evaluations of the traditional curriculum and of vocational programmes and careers education made by particular groups of young people, particularly young Emirati men, who experience a relatively high rate of youth unemployment. Research carried out in UAE schools found evidence that poor teaching contributed to higher risk of drop-out.

In Lebanon, PS-TIT is currently suspended. This provides an opportunity to observe the consequences of switching off the supply of newly trained TVET teachers for the TVET system. In consequence, private and public TVET institutes are recruiting teachers on fixed-term contracts. It is reported, however, that such appointments are making it more difficult to source teachers with the right skills-set for delivering specialised programmes. Further, it is reported that the systematic assessment of teacher performance in public sector TVET is not required which is reducing demand for IS-TVET. In the private sector in Lebanon, by contrast, assessment of teachers' performance is required and, in consequence, private schools continue to invest in IS-TIT.

In summary, we can regard TIT as one factor among others to explain improvement in the outcomes of teaching and training in TVET. At present, we do not have good evidence concerning how important this one factor is in relation to other factors, but there are initiatives and reforms under way that could provide opportunities for robust evaluations. In many countries, and particularly in some sectors within some countries, there is however evidence that the quality of teaching and training is not fully meeting the needs of learners or employers. In Lebanon we have an example of how the failure to provide PS-TIT is leading to problems for the TVET system as a whole.





Qualification and career path

In general, a traditional ‘civil service’ approach to career progression is characteristic of TVET employment in the public sector across the Arab region. The career process is structured by a hierarchical ladder. There is an emphasis on generalised, formal procedures to determine advancement, and weight is given to traditional, objective measures: qualifications, assessments and time served. However, in some countries the actual operation of this bureaucratic process is perceived as unfair, opaque, cumbersome or even corrupt. Another concern is that this system separates the teachers, instructors and trainers that are ‘civil servants’ from those who are not: instructors working in training centres, teachers on part-time or fixed-term contracts and those working in the private sector: it reduces permeability and mobility. Further, the increase in salary that results from promotion is sometimes modest and is seldom related to performance.

In Tunisia there is a well-developed career hierarchy which operates throughout the public TVET system. There are five classes to which instructors can be recruited and each class is divided into several sub-classes which are associated with different salary levels. Positions are open to both external appointment (depending upon qualifications and examination performance) and internal appointment through promotion of employees at the level below. Such promotions depend upon performance, time served and professional development. In addition, technical teachers can compete to gain a position of responsibility in a training centre, such as Director or Head of Department. However, concerns about unfairness and corruption in the past, and rising expectations since 2011, are leading to challenges to the operation of this system. Moroccan teachers are reported to be critical of their system which is judged to be slow and to undervalue individual effort and personal initiative.

Where the public sector operates multiple training departments corresponding to different government departments, these departments may function with different career structures. The career structure and assessment system for professional trainers working within one large training organisation (OFPPT) in Morocco have much improved following reform in 2003. The reform has led to a rationalised and unified career ladder, opportunity for promotion through assessment every two years and promotion based on time served every four years, more transparent assessment based on identified competences and increased differentials in salaries. These reforms are judged to have put 'individual performance and skills development at the centre of the system of remuneration and career development'

By contrast, in the training departments of some other ministries, lack of formal status, low levels of training and the lack of evaluation of performance are judged to demotivate trainers and instructors.

In Egypt, the establishment of a legal and institutional basis for the professional status of teachers has brought about a well-defined career structure. The 'Cadre Law' applies to teachers working for the Ministry of Education and those in Asharite schools. All TVET theory and general teachers working in technical secondary schools²⁹ and instructors working in technical secondary schools³⁰ are subject to this framework which governs incentives and promotion and defines standards of performance and expectations with regard to IS-TIT.

However, difficulties in delivering this entitlement (for example, delivering IS-TIT and assessments) together with an increase in the level of protest and raised expectations since 2011 have led to a number of departures from the rules. Concessions have been made on the incentives paid to teachers and on the assessment of teachers as a condition for promotion. Research has also revealed some concerns relating to a lack of consultation during the establishment of the 'Cadre Law' framework, the low level of incentives and the fact that the rules do not apply to all teachers and instructors. While the career ladder provides opportunities for technical teachers, it does not provide a career path for trainers and instructors who are not teachers. There is no provision for trainers and instructors to qualify as technical teachers if they do not have degrees (except in the case of traditional craft skills).

²⁹ Around 142,000 in 2010-11.

³⁰ Around 50,000 in 2010-11.

The career structure for Egyptian teachers

The professional career structure of teachers consists of 6 grades, including the initial one. Promotion from one grade to the next is subject to completing courses, including writing studies and reports, performance appraisal from their employing institution and passing tests. New teachers are appointed as 'Assistant Teacher' for two years and after successfully completing the promotion requirement are upgraded to 'Teacher', which is considered as grade one in the ladder. After four years, if he or she successfully completes the promotion requirement, the teacher will be upgraded to 'First Teacher', and then successively to 'First Teacher A', 'Expert Teacher' and 'Master Teacher'. Promotion brings with it an increase of the 'Teaching Allowance' as well as a rank increase on the civil servants' scale, including higher salary.

This career ladder applies not only to teachers but also to instructors working in Ministry of Education and Azhar schools.

Source: Egyptian National Report

Bahrain, like Egypt, has a hierarchy of career grades for *all* teachers. The 'Teacher Cadre' career structure consists of 8 levels divided into three tracks. This structure has been reviewed and linked to a performance framework that specifies roles, competences, and evidence and measurement of performance. This framework is currently being introduced. Teachers are required to undertake 90 hours of professional development per year, either at the Bahrain Teachers Institute, through training events, or mentoring delivered in their schools. Professional development is linked to progression up the career ladder, but it has also been designed to reflect the new pedagogic approaches and new curricula adopted by the government.

Jordan also has a career structure for teachers, but it only applies to teachers working for the Ministry of Education. In Jordan, teachers and instructors are graded in four ranks:

- Assistant teacher
- Teacher
- First teacher
- Expert teacher

Teachers progress from rank to rank by passing assessments, by completing IS-TIT or by other professional contributions, such as writing textbooks. This system is reported to be popular with TVET teachers and is judged to encourage professional and pedagogic updating.

Career frameworks for professional trainers are, in general, less well-established. However, large training organizations, such as those found in Algeria and Morocco, do have organizational career structures and Jordan's Vocational Training Centre (VTC) system has its own four-level career structure. Furthermore, there is evidence of trainer mobility between the private and public training sectors, which suggests that, in practice, training career paths cross between different organizations. However, the extent of trainer mobility and the way that this interacts with TIT and with career structures is not extensively researched.

It is often the case that minimum qualification standards are higher for teachers than for practical instructors, even when they work in the same institutions. Instructors working in secondary schools in Jordan and Egypt are likely not to have degrees but only to be graduates of vocational

or technical schools. Similarly, no teaching or industrial experience is required for instructors working in vocational training centres in Oman. A recent survey of professional trainers working across private and public sectors and in different vocational sectors in Morocco revealed that over half had no industrial or training experience when appointed. It is not entirely clear how this situation impacts on the quality of the TVET workforce, but it is the subject of concern in these countries.

In Oman and UAE there is no overall framework that lays down requirements in terms of qualifications and experience for TVET teachers, although there are requirements for particular institutions. Promotion in different types of institution will depend upon particular institutional procedures. It is argued that some kind of framework would support quality assurance and increase mobility between different types of institution and between the public and private sector. In UAE there are plans to implement a new national qualifications framework (NQF) and to generate an occupational standard for vocational teachers. These measures are intended to improve comparability for the VET teacher and instructor qualifications.

Bahrain also has a Teachers' Qualification Framework which states the norms, standards, and minimum requirements for primary, secondary and tertiary teachers in all educational institutions. The framework also sets out requirements for IS-TIT, assessment and performance and applies to both academic and technical teachers.

In Saudi Arabia the recruitment and human resources environment has been designed to recruit able teachers and to motivate them to perform well within the system. Although TVET teachers are civil servants there is a much greater

emphasis on performance than on experience. Successful recruits for the public sector technical teaching institutions are required to have a GPA score of 3.75 (out of 5) and to pass written and oral tests with regard to English and technical expertise. Salaries are 40% higher in this sector than in general education in order to attract well-qualified candidates and to raise the status of TVET. Pay is performance-related on the basis of lesson observations and appraisals. Good performance leads to promotion and substantial salary rises and to annual bonuses. Public sector technical teachers can apply for subsidised IS-TIT and industrial experience – including higher degrees and study abroad. Currently, there is relatively little support for instructional pedagogy beyond a two week induction: this is currently an area for development.

Given that the TVET sector and TVET workforce in the Gulf are highly international, it is not surprising that Gulf States were ready to recognise international qualifications and to require foreign language competences (i.e. English) within their TVET systems. In the future, sustaining both national and international qualifications within the same system may become a challenge, as will operating a career structure that gives opportunities to nationals as well as expatriates without sacrificing equity or merit.³¹

In most of the ten countries discussed in this study, TVET teachers are civil servants. This gives teachers high status and some privileges. Usually some kind of career structure operates which rewards experience and, to some degree, encourages good performance and professional

³¹ In Egypt it is reported that higher performing VET teachers may be rewarded through opportunities for secondment to work in well-rewarded Gulf TVET systems.

development. However, there are issues about fairness and transparency, and also about whether sufficient weight is given to performance and whether the career structure reflects the competences required and the functions that teachers and trainers actually perform. Where career structures are renewed, as has happened to some degree in Egypt and Morocco, this can provide the opportunity to re-focus on better performance, encourage relevant professional development and support the development of professional identity. Much depends on how effectively the career structure operates, whether it is transparent, appropriately resourced and well designed, and who is included within it and who is excluded from it.



Funding mechanisms and sustainability

In general, it has not been possible to obtain detailed, comparable data on spending on TIT for TVET in the ten countries discussed in this report. More often than not public spending is allocated to institutions or departments rather than functions, or is not publicly available in great detail. However, an effective evaluation of TIT depends on knowledge of costs: it is hoped that further research might unearth better data, at least for some countries. In general, it is the state that pays for TVET TIT. However, foreign aid plays a big role in some Arab countries although it is not clear just how much of this aid flows into TIT as opposed to other parts of TVET. A number of countries, Saudi Arabia and Jordan for example, have put levies on immigrant workers. Morocco operates a payroll tax to help pay for professional training. Egypt operates a training fund which is supposed to receive 1% of the profit of every firm that employs more than 10 workers. Tunisia and Algeria also have training levies on business. The research did not reveal much financial cooperation between Arab countries, although Tunisia, for example, has received loans for educational development from the Arab Fund for Economic and Social Development.

In Algeria, it is estimated that education absorbs 28% of public spending. It was not possible to estimate spending on TVET and even less so on TIT for TVET. The allocation for operating the main training institutions (IFEPs and INFEP) amounts to 3% of total spending by the ministry responsible for TVET (2011).³² MEDA programmes in Algeria

support the development of governance, social partnerships and TIT (3000 teachers and instructors were involved in the first phase). The aim is to introduce a more performance-managed system where spending decisions are decentralised and managers of training institutes are held accountable for outcomes. Currently, however, management information systems necessary for implementing this reform do not exist in Algeria.

Tunisia has a centralised agency (CENAFFIF) that is responsible for all training. Furthermore, detailed data are available on spending. 54% of CENAFFIF's funding come from the state, 43% from foreign aid and 2% is earned income (2012).

TVET and TIT funding in Egypt is largely through government, with a contribution from international donors and NGOs. International funding of new institutions has, in some cases, made a lasting contribution. The development of two Colleges for Industrial Education, which train technical teachers for secondary schools, was funded through loans from the World Bank and the African Development Bank. The Staff Training Institute (STI) was set up with support of the ILO in 1964 and it continues to train trainers for the Productivity and Vocational Training Department (PVT) today. The EU has co-financed the TVET Reform Programme (TVET 1) worth EUR 50 million. The first phase of this project (2005–2013) trained over 8000 teachers and instructors working for several ministries. Training topics included career guidance and the operation of the alternance (dual) system of training. However, the provision of TVET and TIT is said to be constrained by funding,

³² *Ministère de la Formation et de l'Enseignement Professionnels.*

and Egypt does not appear to have found ways of developing new sources of funding, loans or private partnership projects to support TIT.

The general budget for education in Morocco is estimated to be EUR 3.1 billion (2009). Vocational training is paid for largely by public funds. This funding is provided through the Department for Professional Training and Employment (OFPPT), and financed by a levy on the payroll, currently set at 1.6%. TVET in Morocco benefits from funding (amounting to EUR 100 million) through partnerships with international agencies, particularly through the framework of the EU's neighbourhood policy. Two Canadian-financed projects have particular relevance for TVET: PAGESM, which aims at improving the management and autonomy of educational institutions; and REAPC, which encourages a competence-based approach to vocational training.³³

In Lebanon, it is reported that there is currently a lack of transparency about the actual spending of government. There is no specific funding for TIT within the overall funding of TVET – which receives 8.6% of the overall education budget. Currently PS-TIT for TVET is suspended in Lebanon, although existing staff remain on the payroll. After paying salaries and maintenance, TVET institutions have very limited resources with which to purchase IS-TIT, and they do not have the authority to manage resources themselves. In consequence,

TIT is reported to be underfunded, and funding mechanisms are not being used to develop or assure the quality of IS-TIT. Interviews with local stakeholders revealed dissatisfaction with current funding arrangements. The dual system in Lebanon has benefitted from 15 years of support from the GIZ working with local TIT institutions. However, this support is coming to an end.

Lebanon has twice as many private TVET schools as public ones. Private schools accommodate roughly 60% of TVET students. It is reported that many public schools are too small to offer a wide range of specialisms and that some are over-staffed.³⁴ In Lebanon, private-sector and not-for-profit training organizations are able to earn income from fees and also to attract sponsorship and support from NGOs and international donors. These organizations often invest in TIT in order to be able to sustain their operation beyond the lifetime of grants, to assure quality and to innovate.

³³ *Projet d'appui à la gestion des établissements scolaires du Maroc 2011-2015 ; Réforme de l'éducation par le biais de l'approche par compétences 2011-2015.*

³⁴ More than 50 public schools have fewer than 200 students.

Support outside of the public sector in Lebanon

The National Council of Social Services is a group of 50 private institutes that receive support from NGOs. The Amleih institute, a member in the council, began as a German project in 1958. At the time Germany established laboratories and provided 15 teaching staff experts. A few years later, Amleih began sending teachers to Germany for training. By 1973, Amleih had a complete teaching staff and the German experts left. While cooperation with Germany continues to this day, Amleih now also collaborates with other international providers for the purposes of IS-TIT. Currently, GIZ provides teachers' IS-TIT courses lasting up to one month designed to meet the institute's needs. The training cost is subsidised mainly by Germany.

Private institutes like Amleih depend on students' tuition fees to survive and therefore their system of quality assurance and accountability is more serious than in the public system. Teachers' training, performance assessment, and the relevance of curricula to market needs are regarded as key levers recruiting large volumes of high quality students. A collaborative and sustained relation with employers is also pursued since this is understood to be central to Amleih's success.

Amleih benefits from its relative autonomy: managers are able to develop their own strategy, manage their own workforce and, to some degree, innovate in terms of curriculum and pedagogy.

Source: Lebanese National Report

In Jordan, education spending accounts for about 10% of public spending and 3.8% of GDP (2011). 2.81% of the education budget is spent on secondary vocational education and 1.4% on vocational training centres. It is estimated that 15% of this spending on TVET is allocated to TIT. E-TVET is the unified funding agency for TVET in Jordan. It coordinates and controls resources coming from government, work permits for foreign workers³⁵ and international donors. Funding from NGOs and international donors is very significant for both TVET and TIT. In 2008, EUR 1.5 million were approved by the EU for TIT to train thousands of instructors. In the case of vocational training centres, foreign assistance amounted to 40-50% of all spending in 2011.

Jordan has developed a significant private training sector: some 28 private community colleges and 16 private universities provide many TVET

programmes. The Amman Chamber of Commerce has developed a commercial training provision offering short-term training programmes. It is estimated that some 1000 teachers and instructors are employed by private training providers.

Saudi Arabia spends 10% of GDP on education, which amounts to 25% of public spending. TVET accounts for 2.34% of public spending on education. Spending on TVET has increased by 40% over the last five years, due to increases in both the number and salaries of TVET teachers. A budget of around EUR 23 million is dedicated to IS-TIT for TVET (from a total TIT TVET budget of EUR 43 million). Conventional government incomes are supplemented by various levies on foreign workers: charges for visas and working permits and, since January 2013, a charge of USD 53 per month for non-Saudi workers in the private sector.

Spending on education represents 23% of all public spending in Oman, which compares favourably with other Gulf States. Spending on

³⁵ Each work permit costs USD 100 and the fund is valued at USD 30 million p.a.

education constitutes 0.99% of GDP. The overall share going to VET is not known, nor the share going to TIT. Education expenditure in Bahrain accounts for 2.9% of GDP. There is no specific budget for TVET although there is an identified budget for the Barhain Teachers' College and for school improvement. The Bahrain state raises a levy of 1-3% of enterprises' wage bills which is payable to the Supreme Council for Vocational Education. Some of this funding finances the Bahrain Training Institute. The federal structure of UAE means that funding of TVET and TIT can be shared and this approach could be of value for countries with a similar approach.³⁶

It is difficult to draw conclusions where data are scarce. However, it is clear that very substantial amounts of foreign aid have flowed into TVET in the Mahgreb and the Mashrek, of which some has been invested in TIT. It would be valuable to evaluate the impact of this aid on policy and practice, and to consider how this impact can be shared and sustained.

³⁶ In Europe, for example, Switzerland provides TVET for Liechtenstein.



Challenges and opportunities



Policy-makers are trying to develop, improve or reform TIT institutions and processes for a number of reasons. In particular, policy-makers want to increase the capacity and relevance of their TVET systems, and they need to replace existing teachers and trainers as they retire. In some countries, for example in the Gulf States, investment in TIT is associated with policies to develop particular industries and diversify economies. There is a widespread perception that employment is changing and that workers will need new competences, for example IT and English-language skills, as well as higher technical and scientific skills, which means that the curricula and qualifications for TVET should also change. To ensure that these new competences can be delivered, teachers and trainers need to have a new pedagogical capability. Planning and development of TIT are sometimes linked to industrial policies that prioritise particular industrial sectors, such as ICT, tourism and technology.

Why are changes in TIT needed?

An important purpose for TVET across the Arab region is to increase employment. Unemployment among young people, including university graduates, is a major socio-economic issue across much of the region. Given the region's demography and the constraints that this puts on the resources of the public sector, the implication is that policy-makers want the private sector to employ more people. This has implications not only for the kinds of competences that TVET should generate but also for its orientation. TVET teachers and institutions will thus have to orient their teaching and their students toward employment in the private sector, and this means working more closely with employers.

More generally, TVET and TIT policy is increasingly influenced by the consideration that TVET can contribute to economic growth. This policy priority has led to greater interest in how TVET can be responsive to the needs of the labour market, how it can be coordinated with public and private sector initiatives to strengthen particular economic sectors, and what role the private sector should play in the governance and delivery of TVET and TIT. It is argued that structures and roles in TVET might need to change if this priority is to be addressed and that changes in TIT may be necessary to make this possible.

In some countries in the Arab region there are concerns about the quality and relevance of TVET provision. TVET programmes are widely seen as second-best options, unattractive to young people; drop-out rates are higher than for

academic tracks;³⁷ and credentials are of relatively low value in the labour market. Methods of instruction are judged to be old-fashioned while teachers' and trainers' knowledge and experience of current industrial practices are thought to be deficient. It is argued that a greater variety of pedagogical approaches is required and that especially modes of learning should become less academic, more practical, more student-centred and more work-related. In particular, it is argued that the future development of Arab economies implies greater demand for new skills, for example in areas such as ICTs, English language, entrepreneurship, and problem-solving, and that both curriculum and pedagogy in TVET must change in order to address these needs. TVET in Arab countries should be able to benefit from new technologies, new environments and new ways of working: however, the take-up of these opportunities depends, in part, on the readiness and capability of the TVET workforce for change.

It is also argued that improvements in TIT can improve career prospects for TVET teachers, making the TVET profession more attractive and rewarding. Changes in TIT are also seen as a way to address issues of inclusion and equity. In particular, increasing the participation of women in TIT is seen as a means for expanding female participation in TVET and spreading it across vocational sectors. In the Gulf States, there is a

³⁷ In Bahrain, for example, attrition for young men in secondary vocational programmes is 18% in comparison to 3% for the unified secondary track (N. Al Mahdi, 2013, Bahrain National Report).

concern to equip nationals with the skills and attitudes that they will need to compete with migrants. If TVET is to deliver social as well as economic outcomes, this has implications for the competences of the TVET workforce and hence for TIT. In addition, there is the perception that career opportunities for work-based (or training centre-based) trainers are, in general, inferior to those for school-based technical teachers, and that this unfairness should be addressed.

The fact that in most countries in the Arab region teachers are civil servants is part of the challenge. It results in a sharp separation between teachers employed by the public sector and trainers who are not. Also, it encourages a demand for teaching posts that exceeds the number of vacant posts, and that has as much to do with the status and conditions of public sector employment as with the vocation of TVET teaching. Further, it tends to isolate technical teachers from the private sector when, on the contrary, they should understand this sector and have first-hand experience of working in it, and also be able to provide their students with a positive valuation of it. On the other hand, the civil service status of TVET teachers can contribute to the professionalization of the workforce. Moreover, the fact that TIT is, to a large extent, a public sector service makes it possible for the government to use it as a policy tool to drive improvements in TVET.

Issues for TIT across the Arab region

The ten national reports reveal considerable variation in the extent and manner in which institutions have been developed to provide initial and continuing TIT in each of the ten countries. In general, we find that TIT institutions reflect

the diversity of TVET institutions in a country. Where there is a relatively great diversity of TVET provision, as in Egypt, we find a similar diversity of TIT. Generally we find a clear boundary between technical teachers, educated in universities, and instructors, who are not. This division is reflected in different job roles, different career structures, different salaries and conditions. Teachers and instructors sometimes work in quite different kinds of institution, such as schools and training centres. However, they sometimes also work in the same institution, for instance in Egyptian Technical Schools, but with distinct roles and status. A further boundary exists between teachers and instructors on the one hand, and trainers working in enterprises on the other. The boundary is marked by different qualifications, status and rewards, even where, as for example in dual-system programmes, trainers and instructors share the delivery of the same programme.

On the positive side, these boundaries may help to ensure high standards and respect for technical knowledge as well as practical skills. On the negative side, they may have the effect of separating the teaching of theory from the teaching of practice. Indeed, these boundaries make it less likely that technical teachers will have experience of the working world and more difficult for those with such experience to become teachers. It is, of course, a boundary that is found around the world, not just in the Arab region. However, it is common in Europe, for example, to encourage permeability by using in-service training to permit those with many years of experience in industry to gain the qualifications required to become school and college teachers.

In some of the countries (for example, Lebanon) discussed in this report, TIT institutions are under-resourced and they lack the authority to make

TIT effective. Recognition of TIT certification for recruitment and promotion is sometimes deficient. It is common for universities, which play a key role in TIT, to place an emphasis on technical knowledge but neglect instructional skills and current practice in enterprises. In many countries there is a concern that TVET teachers do not have the capability of relating TVET to current working practices in enterprises and that this competence is not being addressed by TIT.

In Bahrain, Oman, Saudi Arabia and the United Arab Emirates funding does not constrain TIT provision to the extent that it does in Algeria, Egypt, Jordan Lebanon, Morocco and Tunisia. Jordan has managed to establish a dedicated stream of funding for TVET, including TIT. International assistance is very significant for TVET and TIT in some countries, for example in Tunisia, Jordan and Morocco, and important in others, for example in Egypt and Algeria.

We can distinguish four issues or tensions that are important for the development of an effective TIT strategy and capacity: (1) public provision/market orientation; (2) diversity/coherence; (3) knowledge base for governance; and (3) professionalization. These four areas represent opportunities and barriers, but they also relate to alternative strategies: the way forward is neither simple nor unique.

Public provision/market orientation

As stated above, it is argued that TVET should be made more responsive to the needs of the labour market and that TIT could be one way of doing this. TIT should be supplying the competences that potential and serving TVET teachers and

trainers need, because they are the competences required by TVET providers in the public and private sectors. As TIT is for the most part in the Arab region a public good, provided free by the state, it is difficult to judge whether it is currently meeting labour-market needs or not. However, there is some evidence that the demand for TIT is driven more by legal requirements than by its inherent usefulness. For example at Helwan, in Egypt, applications for earning teaching qualifications fell sharply when the guarantee of employment as a teacher was abolished.

However, there are obstacles to making TIT truly 'demand driven'. First, in most cases, TIT is publicly funded, which makes it more responsive to its funders than to the employers of its graduates. Even though TVET schools are themselves publicly funded, it does not necessarily follow that funding bodies will ensure that TIT is responsive to the needs of TVET schools. Second, we expect TIT to generate the competences for the future and not just for immediate demand: for example, in Saudi Arabia, it has proved difficult to integrate the graduates of an advanced TVET teacher training institute into conventional TVET schools. Third, it may be difficult for TVET providers to signal their needs to TIT providers if teacher recruitment is centrally controlled along with other civil service recruitment.³⁸

It should also be said that demand driven does not mean the same as market driven. Most of the ten countries in this study operate some kind of planning so that the provision of PS-TIT

³⁸ Civil service regulations are likely to constrain salary levels, which is likely to affect the quality of teachers and instructors recruited. Further, civil service recruitment may be ill-suited to the TVET profession, for example in Jordan civil service application procedures do not recognise technical qualifications.

is connected to recruitment needs. About half say that they conduct needs analysis to inform the provision of IS-TIT. However, effective needs analysis depends on the identification of needs in TVET institutes and schools and communication of those needs to the bodies that design, fund and supply IS-TIT. In addition, IS-TIT must be delivered to those teachers and trainers who need it. Getting these processes to work is a matter not only of markets but also of governance, effective management and funding, and of shared norms and values.

Coherence/diversity

TIT provision is often lacking in coherence: different institutions are funded and administered through different channels and they have different systems of credentials and quality assurance. This makes it difficult for the users – both teachers and instructors and TVET employers – to understand and value TIT. It is also difficult for policy-makers to measure the adequacy of TIT in relation to training needs and to steer the development of TIT. The successive development of new initiatives and programmes for TIT, which may be administered by consultancies, international development organizations or dedicated national agencies, is likely to lead to parallel institutions and steering agencies. Expertise is thus distributed across separate agencies, and experience, reputation and good networking do not accumulate over time.

On the other hand, diversity does permit new institutions to be set up which can benefit from specialised sources of funding, national and international. These specialised TIT institutions may be particularly responsive to the market, for example they may be able to target elite recruits (e.g. Saudi Arabia's Technical Trainers

Colleges) or emerging industries (e.g. Morocco's 100 Microsoft Academy) or distinct markets for training (e.g. Amman's Chamber of Commerce Training Services). They may be distinctive in their approach to pedagogy (for example the Bahrain Teachers College) or in the mode of TIT they support (Egypt's Industrial Training Colleges).

Rationalisation is costly and time consuming and may encounter resistance: in Morocco, an attempt to merge two government training divisions has been abandoned; in Egypt it has so far not been possible to establish unified coordination of TVET. However, rationalisation can also be a way to establish, in a lasting manner, new processes and practices. The way forward for these ten countries is likely to be twofold: on the one hand, creating new and rationalising old institutional structures, when economic and political resources permit; on the other, seeking to build an overall framework for TIT across the whole of TVET (including work-based and private-sector training) so that there is more mobility, communication and opportunity across the profession as a whole. It should not be forgotten that the demographics of the Arab world have turned TVET into a growth industry and, if properly developed, the profession of teacher and trainer into a profession of opportunity.

Knowledge base for effective governance of TIT

As the review has shown, some of the ten Arab countries in this study have strong information systems relating to their TVET workforce and their TIT provision; most, however, do not.

In some countries, for example in Tunisia and Lebanon, lack of data is reported to be one of

the barriers to effective planning and reform, while in Saudi Arabia the existence of good data in relation to training across both the public and private sectors seems to have helped planning and reform.

Several factors underpin the capacity of countries to develop and sustain a knowledge base that is adequate for the purposes of effective governance of TIT. One main factor is the fragmented nature of TVET provision in most of the countries. Other factors relate to the diversity of the teaching professions highlighted in Chapter 1, as well as the diversity of TIT available for different kinds of teacher and trainer, through different modes, across different institutions. Knowledge and information are indispensable for an effective TIT governance system (GMR, 2014). Policy-makers need to know and understand the teaching workforce profile, their skills needs and expectations, their performance and impact.

Monitoring and evaluation evidence on the impact of TVET and TIT policies and programmes should inform management and policy-making. Wider research capacity would help governments in the Arab region to learn from their own history and from one another. It could also help to promote more transparent, better evidenced decision-making which supports the development of civil society and informed debate.

Key constraints on the improvement of the knowledge base are resource and time implications. Managers and institutional leaders may need further training if they are to make effective use of additional data. The cost in terms of financial and human resources of developing the capability to collect and use workforce and TIT data effectively is high, particularly in highly

fragmented systems. Yet the cost of neglecting management information and evaluation findings in terms of missed opportunities and wasted resources is also high.

Professionalization

TIT provision should serve its markets and fulfil national policy objectives. However, it should also contribute to the development of a professional community of TVET teachers and trainers. Professionalism represents a key resource for the maintenance and improvement of standards and for the encouragement of research, innovation, life-long learning and collaboration. It is also a means of raising the social status of teachers and trainers, and of advancing citizenship and community participation. Professionalism implies that the TVET workforce is committed to develop their own competences, for the benefit of themselves and for all those they work for. Professionalization is the process by which this professionalism develops.³⁹

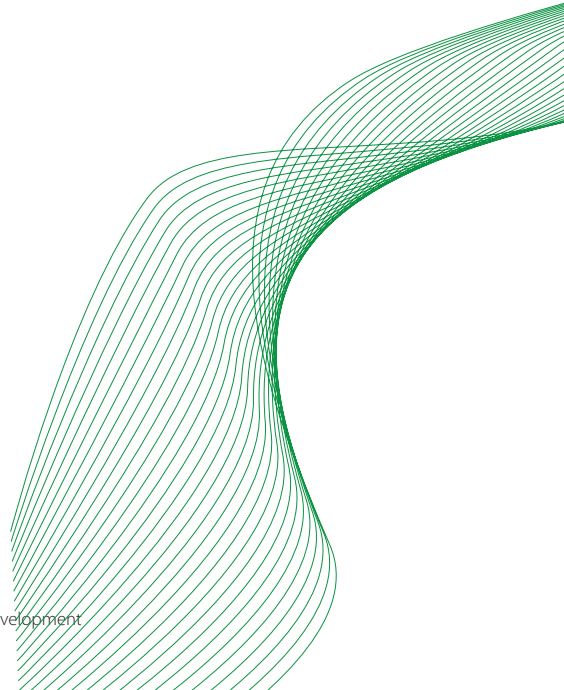
In general, across all ten countries qualifications constitute a licence to practice for teachers and for most instructors. However, there are exceptions with respect to part-time and short-term contracted teachers and instructors in some countries. Work-based trainers are, in most of the countries, not professionalised in this way. In other respects there is a perception, across the region, that teachers, and particularly trainers, are under-professionalised and that they do not have a career path that enhances their professionalism, nor associations and organizations that empower them.

³⁹ The implications of professionalism are discussed in Section 5.2 above.

Professionalism implies that practitioners have a voice in shaping the quality assurance, qualifications, career structure, rewards and evaluation of their profession. However, this capacity for professionalism cannot be taken for granted. It has to be developed, and TIT can help to do this. In some countries the aspiration for a professional identity is being expressed by professional associations or trade unions, and ways are being developed for teachers and trainers to participate in different levels of governance (e.g. Tunisia, Egypt). However, there are questions about whether trade unions engage in the full range of professional issues (rather than concentrating on salaries and conditions). In most of the ten countries studied in this report, the processes of governance for self-regulation are poorly developed.

The establishment of a professional ladder (such as the six-scale ladder in Egypt and the four-scale ladder in Jordan) is important for the formation of a profession. It indicates the different stages

of a professional career, recognises achievement, motivates teachers and trainers, and reinforces shared values and behaviours. However, if progress up the career ladder is, or is perceived to be, largely a matter of time served, as for example in Lebanon, this will undermine professionalism. In Morocco, the new career structure of the OFPPT provides for fast-track promotion based on performance in addition to the slower promotion route based on experience: a reform that offers new perspectives while, at the same time, attending to existing expectations. However, operating more performance-based systems is costly and time consuming, and if high-quality, credible assessments and IS-TIT are not delivered then these new structures and processes will be challenged (as for example in Egypt and Tunisia). There is a potential tension between performance and professionalism: a managerial approach that puts emphasis on performance and results may be seen as conflicting with a professional identity that places weight on experience, training, qualifications, research and publications.



The way
forward



TIT should help to construct a profession of opportunity for the TVET workforce, equipping teachers, instructors and trainers with what is required in order to make TVET responsive to the economic, social and political needs of the societies they serve. A general conclusion is that many elements make up a successful TIT system and if not all of these are in place then progress can be held back. Furthermore, effective TIT is only part of an effective TVET system. Even where TIT has been reformed, this may not bear fruit if teacher recruitment or monitoring of teaching has not been made effective. Tunisia, for example, has a relatively transparent and consistent national TIT system. Teachers and trainers in TVET are required to have a university degree and to get pedagogical training during their probationary year through specialist training programmes. TIT programmes are informed by an occupational standard. However, research with stakeholders suggests that, taken as a whole, PS-TIT fails to impart sufficient pedagogical competence or sufficient understanding of how knowledge and skills are used in enterprises. Furthermore, the recruitment of part-timers and trainers on fixed-term contracts undermines the relatively high qualification requirements which have been set for teachers and trainers on permanent contracts.

A variety of TIT policies and strategies are being explored across the Arab region, as well as considerable experience of implementation and its challenges; this provides opportunities for policy learning and planning for the future. We can distinguish basic pathways, taking us from largely public provision of TVET, as in Algeria or Egypt, through to high levels of pluralism and private-sector participation where, as for example in Saudi Arabia, the state is stepping back from provision and retaining only standard-setting and regulatory functions. In Saudi Arabia, Bahrain and UAE there is increasing involvement of outside providers not only in TVET but also in TIT. However, even where the state is stepping back, TIT is regarded as part of an employment policy strategy and as a tool to assure quality private TVET provision.

This chapter identifies the most prominent directions that policy-makers should consider to improve the performance of TIT in their countries. While countries have different starting points and policy-makers may be committed to different development strategies, there are nevertheless some key processes that deserve universal attention.

Professionalization

A common theme for reformers is that TVET development depends on the empowerment of teachers. As UNESCO's *Education for All: Global Monitoring Report* (UNESCO, 2014) puts it: 'Policy-makers need to give teachers every chance to put their motivation, energy, knowledge and skills to work in improving learning for all.' Professionalism is the key to improvement of quality because it realises the potential of teachers and instructors to contribute to change, to improve performance, to sustain progress and to directly benefit from improvements. Professionalism implies self-

improvement but also offers an opportunity to participate in shaping reform. Professionalism is cultural as well as legal and institutional. It is also closely associated with changes in expectations, for example with respect to democracy and prosperity.

One strategy for greater professionalization has been the development and elaboration of career ladders which reflect the professional norms and values that unite the workforce and raise performance. This is challenging work, but reforms in Egypt, Morocco and Jordan, for example, show that progress can be made and that ways can be found to engage and build the support of teachers and instructors.

TVET teachers enjoy a dual professional identity: as teachers and as part of a vocational or occupational group. TVET teachers need teaching skills and industry knowledge, skills and experience. Networking and bottom-up support can serve to enhance vocational as well as pedagogic identity. Opportunities for occupational updating - in relation to work processes, technology and social status - should be part of IS-TIT. Interaction with those working in the productive sector can be a mode for occupational updating. This collaboration with enterprises can come about through the supervision of work placements, taking part in assessment juries and joint curriculum projects.

However, another area for professional empowerment lies within TVET institutes. The latest PISA study reported a statistical association between the engagement of teachers in shaping curriculum and pedagogy in their institutions and strong performance in mathematics. We can reasonably expect that the same logic will hold for TVET. A forthcoming study by Cedefop shows

that when teachers are involved in planning the local curriculum and shaping lessons in order to meet the needs of learners and exploit the learning opportunities provided by the local learning environment and local business, teaching and learning are more effective.⁴⁰ This has implications for TIT: it implies that teachers need the competences to develop local curricula and to combine different pedagogies.

The establishment of a common career structure and professional standards, defining such matters as professional progression, incentives, promotion procedures, evaluation, disciplinary procedures, ethical standards and entitlements to TIT, is a powerful tool for improving quality and developing the long-term commitment of the workforce. The definition, implementation and review of these standards should include the participation of teachers and instructors since this will contribute to the authority of the standards and determine how teachers and instructors will interpret them.

At the same time, reforms that develop the professionalism of teachers could lead to a more positive role for teacher trade unions. In this context, Nielsen and Matheu de Cortada cite a European Training Foundation (ETF) policy proposal for Serbia, concluding: 'Teacher professionalization strategies could support union renewal based on the need to make teachers key stakeholders of VET reform. Social partnership arrangements at different levels could lead to a

stronger emphasis on interest-based bargaining where unions and employers seek ways to find common ground on agreed problems.' There is evidence that teachers' unions, along with other social partners, are playing an enhanced role in TVET in some Arab countries, for example in Jordan, but much remains to be done to realise the potential for constructive engagement.⁴¹

Professionalization of TVET teachers and trainers can also serve to make the teaching career more attractive and to create an internal driver for quality assurance. This implies changes in governance and the development of social partnerships. It may also imply greater transparency of procedures with regard to licensing and professional registration, employment, monitoring and appraisal. TIT can be used as a tool to ensure that teachers and trainers have the broader skills and values necessary to develop the autonomy of TVET institutions, such as leadership skills and strong ethical norms. TIT, particularly continuous professional development, can enhance the career offer of the profession by facilitating a range of career paths, for example into research, leadership and professional development, as well as the development of instructional capability and knowledge of technology and workplace practices.

Policies to encourage and support professionalism should recognise that there is a diversity of roles: teachers, instructors and trainers, and that professionalization is an ongoing process. As a generalisation, we can say that across the Arab region, teachers are the most professionalized;

40 Cedefop, (forthcoming), *Teaching and Learning in IVET* reports on case studies that illustrate how the engagement of teachers in writing local curricula serves to improve pedagogy and outcomes.

41 Ben Sedrine, 2013, Tunisian National Report, unpublished, reports on the limited success of this process in Tunisia.

work-based trainers are the least professionalized, and instructors are somewhere in the middle. Policy-makers will want to find ways of developing professionalism for each of these roles – recognising that different models and strategies may be appropriate with different occupations and roles.

For example, particular support might be given to strengthen the networking of TVET schools and centre leaders. Networks of these leaders can help to identify their training needs, but they can also offer a mode for professional development: providing peer support, transferring innovation and sharing expertise. Leadership has been identified as a key factor for quality and improvement. The quality and quantity of IS-TIT for TVET senior leadership and middle management are currently under-developed across the Arab world.

Building effective governance

Professional commitment, institutional ethos and foreign aid can all help to improve and sustain TIT for TVET in the absence of effective, unified governance. However, effective governance brings energy, resources and authority to the development of TVET and to TIT. Ideally, TVET providers, instructors and the TVET system as a whole need to be accountable to their multiple stakeholders, including learners, peers and employers. In Arab countries where governance of TIT and TVET is relatively unified and effective, such as Jordan and Saudi Arabia, TIT is relatively well resourced and dynamic. In Morocco reforms in governance appear to be driving improvements in TIT and TVET. Clearly, however, what works in

terms of governance depends on the national political context. The political forces unleashed by the events of 2011 have made that political context more complex but they have also created new political energy, for example, in Tunisia. Where Arab countries share closely related experiences and aspirations, they have much to learn from one another.

Strong leadership at the level of TVET institutions is required to ensure that teachers are supported in their daily work, involved in decision-making and engaged in innovation. The leaders of TVET institutions have to ensure that teachers are motivated and matched to the programmes and roles for which they are best suited and where they are most needed. Effective local leadership will secure necessary IS-TIT, encourage, recognise and reward informal learning and, generally, encourage a culture of continuing professional development in their institutions.

Standards and quality assurance

Several countries in the Arab region have developed or are developing quality assurance systems for TVET, public and private. This includes setting up national coordinating entities, such as the National Authority for Quality Assurance and Accreditation of Education in Egypt and the Centre for Accreditation and Quality Assurance in Jordan. In the Maghreb countries, different ministries have created and implemented accreditation procedures that examine the quality and the profile of the existing TVET teaching force as part of the accreditation process. Saudi Arabia has recently established the Saudi Skills Standards Agency to accredit the quality of all TVET colleges

and training organizations operating in the Kingdom. This kind of quality assurance makes use of teaching qualifications or standards as a benchmark for quality across TVET provision.

Inspection systems are used either as an alternative (Algeria, Lebanon and Oman) or in addition to accreditation (Saudi Arabia) to monitor the quality of teaching and learning. A case can be made for carrying out regular independent inspections of TVET teaching and for improving the credibility and transparency of inspection where these are questioned. Inspections should provide data on needs which can be fed into the design and supply of TIT. Consideration should be given to the scope of inspections. Where inspections address not just individual teachers but also the quality of leadership, local curriculum, support and other institutional matters, they can provide valuable information, helping policy-makers to understand how performance and outcomes might be improved. Broadening of the scope of inspection will depend on the development of an inspection framework accepted by the key stakeholders.

However, mentoring and management are likely to be needed alongside IS-TIT in order to ensure that improvements in quality are achieved. In Europe, for example in the Netherlands and the UK, inspection systems have played a key role in empowering local TVET school managers to focus on the quality of teaching and learning, and to put in place appropriate and effective IS-TIT targeted on the required improvements. Institutional self-assessment can be a powerful tool for engaging teachers in IS-TIT and for coupling training with

management support and, where appropriate, creating the pressure necessary to bring about improvement.

As mentioned above, there is a concern about the relatively low level of TIT provision for instructors working in training centres or trainers in work-based environments; instructors and trainers working in technical or vocational schools have access to better TIT. Identified as a particular issue in Tunisia and Jordan, this issue is, in fact, widespread. More coherent strategic planning led by the government is one way to address this problem. This would have to be cross-departmental, and also include representatives of the private training sector, social partners and training professionals.

Another approach could be the creation of an overarching certification scheme for trainers, or at least of a framework which could recognise different training qualifications. A third strategy is one where the state becomes a universal regulator and accreditor of all training provision (as in Saudi Arabia, for example). In principle, this approach could drive improvements in TIT provision for trainers – if the government sets a sufficiently high standard as a condition for the accreditation of provision. At this point, there does not yet seem to be a model within the Arab region for licensing and recognising the competences and experience of trainers (as opposed to teachers).

There is also a case to be made for establishing processes and institutions capable of assuring the quality of TIT provision. This study suggests

that where TIT is owned by universities, this is part of the general processes of quality assurance operated by universities. Outside of universities, quality assurance of TIT is usually weaker and is sometimes entirely absent. Where effective internal and external quality assurance for TIT is not in place – as in Jordan, Algeria and Lebanon – steps could be taken to improve the situation.

The design and validation of occupational standards for TVET teachers and instructors focus attention upon the competences that are required rather than on the kinds of activities that have gone on in the past under the name of TIT. Where employers, enterprises and teachers are involved in agreeing such standards and where the process is supported by research, occupational standards can be designed that have broad support and are sufficiently robust to inform curriculum design and evaluation. Occupational standards for teachers are in place in Egypt, Jordan, Tunisia, Morocco and Saudi Arabia. They are not yet in place in Lebanon and Oman and not yet in operation in UAE and Algeria. In Tunisia they are in place but have not been used to shape TIT.

Another strategy for assuring quality in TIT would be to construct an overarching framework for the accreditation of IS-TIT events. In Europe, such frameworks improve the status and recognition of IS-TIT: in the UK, for example, teachers can accumulate credits from IS-TIT to generate Master's degrees.

The role of new TIT institutions

Particularly in the Gulf States, TIT has been encouraged by the creation of new institutions, informed by state-of-the-art, international approaches; validated by international certification; and managed by foreign consultants. There are also reformed TIT institutions in Jordan and Morocco.⁴² This approach can be said to 'embody the vision': the presence and impact of these new institutions offer a powerful tool for changing the thinking, behaviour and aspirations of the next generation of TIT providers and users. In Saudi Arabia, the Technical Trainers College (TTC) has served as a test bed for innovation: new qualifications, new staff, new relationships with enterprises, new pedagogies. This has led to the creation of a new, higher-education TVET institute: the College of Applied Technology, which will sustain the spirit of innovation initiated by the TTC. The College of Applied Technology demonstrates how new institutions can support innovation: it draws upon German expertise in vocational training and American expertise in language teaching; it has a unique eight-trimester timetable and an experimental curriculum and pedagogy. Top TTC graduates have been recruited to work at the College of Technology. In order to maximise the contribution that these trainers can make, they have been enrolled into a 'Master of International Vocational Education and Training' programme, offered in partnership with a German university, which will make them 'change agents' for TVET in Saudi Arabia.

42 Jordan's Vocational Training Corporation has been given greater independence and, in Morocco, the regionally based CRMEFs have taken over from the old *Ecole Normale Supérieure* institutions.

Saudi Arabia: Technical Trainers College (TTC)

The first of its kind in the Arab world, the Technical Trainers College (TTC) was established in Riyadh in Saudi Arabia in 2008. Another TTC for men as well as two TTCs for women are planned. The College's Bachelor of Engineering Technology (BET) programme was designed for the TTC drawing on German vocational training methods and experience, and the institute is operated by the German Agency for International Cooperation (GIZ). The programme is internationally accredited by the German accreditation agency ZeVA. In consequence, TTC graduates may pursue a Master's degree in any European university.

Outstanding graduates from Saudi Colleges of Technology are recruited by the TTC for its three-year study programme. Students can join every semester. The programme focuses on the application of knowledge and pedagogy as well as on academic knowledge: 60% of the programme is theoretical, while 40% is practical. The language of study is exclusively English.

The Technical Trainers College (TTC) was selected by Britain's prestigious Oxford University for its international 'Best College' award for its role in imparting higher education in the Arab region.

Source: National Report on the Kingdom of Saudi Arabia

The extent of the impact of these new institutions will depend on their capacity for sharing and disseminating the learning that comes out of these innovations more widely. The relationship between these institutions and TVET providers is important in this context. For example, it is important for those who train TVET teachers to have knowledge of and experience in teaching and leadership in TVET institutions. There may be opportunities for some of these institutions to become 'drivers of change' more widely across the Arab region.

The relationship between TIT institutions and TVET providers

The development of more demand-driven IS-TIT requires reviewing the institutional arrangements, quality assurance, as well as the funding of TIT. Morocco, for example, has reformed its programmes of initial TVET teacher education to bring in an alternance (dual) model where trainee teachers alternate between attending their

regional training institution (CRMEF) and teaching practice in TVET schools. This model requires partnership and enhances the role of the TVET school/institution in shaping and developing the competences which, ultimately, it aims to acquire through recruitment. It is also expected that IS-TIT contribute to the development of greater autonomy of TVET Institutions. In particular, IS-TIT can help to develop leadership and management skills (e.g. the use of management information) and greater capacity for observing teaching and learning and mentoring of teachers and instructors.

In many countries in the Arab region there is a concern to develop the competences of current teaching staff in order to improve the quality and outcomes of TVET. This is taken to mean more effective, better targeted IS-TIT. The provision of IS-TIT programmes is shaped by needs analysis in some countries, which is carried out by supervisors, training coordinators and inspectors. The effectiveness of IS-TIT is measured by satisfaction surveys and, more rarely, by before

and after competence testing of participants. Completion of training is often linked to career development. However, in several countries there is an ambition to link IS-TIT more closely to improvements in the performance of teachers and trainers.

This might be achieved by examining what the medium-term impact of IS-TIT has been on TVET provision and by making local TVET school leaders accountable for necessary improvements. In Europe there has been a move to delegate control and even delivery of TIT for TVET to TVET institutions. In the UK, for example, higher education institutions work in partnership with TVET colleges to jointly provide a range of IS-TIT programmes. TVET colleges develop their own IS-TIT programmes in order to meet their own development needs and to address issues raised by inspection. Colleges may commission others to deliver the IS-TIT they require or employ their own professional mentors and, where appropriate, bring in consultants or specialists from higher education. For example in Malta, a dedicated TVET unit (the Vocational Teacher Training Unit) at the Malta College of Arts Science and Technology (MCAST) provides in-service training for its staff, with a strong focus on learner-centred pedagogies. All new recruits are required to complete this programme to obtain a Diploma in Teaching. MCAST is developing internal quality assurance systems in conjunction with this training.

There is a growing body of international research that suggests that local delivery bodies, schools or training centres are more effective if they have a greater control over how they use their resources and how they meet the goals which are set by national curricula. This appears to hold for both

general and vocational education. The MANFORM plan in Tunisia, for example, sought to decentralise decision-making to training centres by giving centre managers freedom in achieving targets but making them accountable for their performance.

More specifically, the MANFORM reform sought to delegate the recruitment of trainers and the planning of their professional development to training centres, while ensuring that the training of trainers was guided by a national standard that was responsive to the needs of the training centres (the employers). The reform envisaged training centres managed by performance-based contracts and judged by results, but with support provided by the central government and by local networks so that the training centres can make improvements necessary for achieving those results. The MANFORM plans have not been successfully implemented. It is possible, however, that the new political environment in Tunisia may prove to be more favourable to such a strategy than the old regime. Elsewhere in the Arab world a strategy of decentralisation continues to be pursued: for example, UAE is looking to provide greater autonomy for TVET institutions and Morocco has experimented with the delegation of budget and authority to TVET institutions.

How does such a strategy impact upon the provision of PS and IS TIT? Marketisation does not provide a convincing solution: this research reveals that some private trainers value TIT and are willing to pay for it (e.g. Amleih in Lebanon) but others do not and prefer to take advantage of the TIT provided by the state, by employing state employees as part-timers. One strategy, exemplified by Saudi Arabia, sees the state progressively giving up or sharing its role as a

training provider, and developing its role as a regulator – setting standards and accrediting providers, endorsing curricula and teacher qualifications, encouraging innovation – and seeking to encourage a variety of providers. These training providers may be expected to recover their own income in liberal-market economies, or they might be commissioned by the public sector in welfare states. It would not make sense to expect that the entire workforce of such providers would be trained by a state monopoly TIT provider; however, the regulators' power to set minimum standards and the investment of the state in high quality TIT may be the basis for the development of a mixed market for training.

So far there has been little experience in empowering TVET centres as commissioners or purchasers of IS-TIT. Sharing experiences from within the region and beyond would help to inform policy-makers on how institutional and supply relationships might be developed in order to improve responsiveness, accountability and efficiency of TIT.

Working with enterprises and private markets

In Saudi Arabia, the Technical and Vocational Training Corporation (TVTC) has established itself as the regulator for all provision of private training. It licences, monitors, accredits and inspects private training providers. Since taking on this responsibility in 1980, the TVTC has been able to assure the quality of a rapidly growing industry.

This engagement with the private sector has laid the basis for further collaboration. Recently, the TVTC has set up 22 not-for-profit higher training institutes with key industrial sectors in what are called 'strategic partnerships', currently accommodating 24,000 trainees. The TVTC takes responsibility for infrastructure and equipment while the private sector provides management, curriculum and staff, and pays a monthly stipend of USD 400 to trainees who, on successful completion of their training, are guaranteed employment with their sponsoring company.

In parallel, Saudi Arabia's TVTC has entered into partnership with international training providers to set up 11 Colleges of Technology at the level of higher education. In this public-private-partnership, private providers operate the institutions while the TVTC provides support in the form of an interest-free loan and quality assurance. Further funding is linked to successful performance in terms of the numbers of trainees and their insertion into employment. In Bahrain, the Bahrain Teaching Institute provides both initial TVET at BTEC National Diploma and Higher National Diploma levels and customised professional programmes for the corporate sector.

The development of these kinds of arrangements has implications for TIT since they imply that teachers and trainers are likely to be working in public-private institutions, rather than in either the public or the private sector.

In Morocco, an independent Higher Training Institute for the Textiles and Clothing Industry (ESITH) was set up in early 2000, governed by

a joint board made up of government and sector representatives. The institute provides technical and pedagogical training for trainers, and is responsive to the needs of the industry and learners. Its independent status and strong links with industry have helped it to engage in innovative projects attracting support from international funders.

Greater collaboration between TIT institutions and the ultimate employers of the trainees that their graduates will train is recommended in order to improve the capability of teachers and trainers to connect TVET to the world of work. Teacher placements during initial teacher education are offered in Saudi Arabia's Technical Trainers College. In Tunisia there have been attempts to engage employers in TIT and TVET through sector organizations. A number of other countries in the Arab region are engaging employers more in the governance of TIT, in particular through the setting of occupational standards for teachers and trainers. Such occupational standards can then form the basis for TIT programmes aiming to deliver the competences required.

Pedagogy and ICTs

In general, there is less emphasis by policy-makers in the Arab region on a strategy of improving TVET by changing instructional methods or pedagogy than might be found, for example, in Europe or Australia.⁴³ Engagement with learner-centred approaches or with competence-based

pedagogies is most marked where there has been involvement of international experts such as GIZ in Saudi Arabia, Australian experts in Bahrain or through European development projects, such as MEDA in Tunisia. In general, it is probably fair to say that the pedagogical dimension of teacher and trainer training has been neglected in Arab countries in terms of the amount of time and support given. Although teaching practice is usually part of PS-TIT, there appears to be relatively little work undertaken with respect to the development of different vocational teaching skills such as differentiation, modelling, coaching, linking theory and practice and the development of review and reflection. This is a concern given that many of the young people taking TVET programmes will be learners who have not experienced success in their prior educational careers (otherwise they would not have found themselves taking TVET programmes). There should also be TIT provision that develops capacity to meet the needs of specific target groups, such as disabled persons, or people subjected to other forms of discrimination and exclusion (e.g. because of gender differences).

It is important, therefore, to share experiences of reforms and initiatives that do focus on pedagogy and that use practical teaching experience as a tool for developing pedagogical skills to meet the needs of all learners.

New educational technologies represent both a challenge and an opportunity. Lack of equipment and time are said to be barriers, as is the low baseline from which many teachers are starting. This is especially true for rural schools, which are more likely to lack access to equipment and the

⁴³ For example: *Education and Training 2010: three studies to support school policy development* (Lot 2 Teacher Education Curricula in the EU), 2009, Finnish Institute for Educational Research.

internet. For example, it is reported in Egypt that the competences of TVET teachers are holding back take-up and exploitation of new ICTs.

At present, there is insufficient data available to draw any conclusions on the use, and more broadly the impact, of new educational technologies on the quality of TVET. However, recent research (ETF, 2006) indicates that while there is an increasing use of the latest technologies, these technologies are not yet integrated with individual learning processes or with the rest of pedagogy.

Information and communication technologies (ICT) provide tools for TIT. New technologies, for example tablets, are being experimented with where they can be afforded. There are some examples of e-learning for teachers and trainers mentioned in the national reports, for example training conducted by the Staff Training Agency of Egypt's Vocational Training Department and training offered by an Australian provider to trainee teachers in Bahrain. While the Bahraini example made clear that there are difficulties in making this kind of learning effective, there is nonetheless considerable potential for the development and sharing of e-learning resources nationally and across the Arab region.

TIT has a major role to play in equipping trainers of trainers and trainees with the necessary competences to make use of this powerful new medium. However, the integration of ICTs into pedagogy has wide implications. UNESCO's ICT Competency Framework for Teachers⁴⁴ emphasises that it is not enough for teachers to have ICT competences and be able to teach

them to their students. Teachers need to be able to help the students to combine ICT skills with technical, practical and transverse skills so they will be effective citizens and valuable long-term members of the workforce.

Research, evaluation and knowledge to inform governance and practice

Reliable and comprehensive knowledge of the workforce profile, of TIT provision and of the needs of TVET providers is essential for planning and effective use of resources. In order to judge the effectiveness of PS-TIT and IS-TIT it is necessary to monitor performance and measure impact. Information needs to be available at the appropriate level: whether for the purposes of strategic planning at the centre or institutional improvement locally. Information needs to be effectively communicated, so that institutions can work together to meet one another's needs. If local managers can access information on performance, they will be able to target IS-TIT and monitor impact; improvements in management information systems help to make this practicable.

In addition to management information there is a need for research to understand the impact of policy, to identify solutions and to understand needs. Although this study has identified some published research and evaluation that has been conducted in relation to TVET and TIT in the Arab region, there appears to be a paucity of robust research. This means that while there are many initiatives and reforms, learning from these experiences is not accumulated and shared. In particular, there is little evidence that research and evaluation relating to TVET – for example with

44 <http://unesdoc.unesco.org/images/0021/002134/213475e.pdf>

regard to curriculum development, pedagogy and institutional reform - feed into TIT. In Europe there are increasing efforts to link the development of professional practice with research. This contributes to professionalization of TVET and TIT because it equips practitioners with the tools they need to interpret and generate new knowledge and new practice.

The Master of International Vocational Education and Training (MIVET) in Saudi Arabia's College of Applied Technology (CAT) does have a research strand and this is regarded as a step toward establishing a national research capacity in this field. Policy-makers, funding bodies, universities and international agencies should consider how existing research can be better accessed and evaluated, and how new research and evaluations can be commissioned that address the key issues faced by the region. In particular, consideration should be given to robust evaluations of initiatives and action research. Given that TVET research capacity in the region is at present relatively limited, research could become a field for regional cooperation.

This report has identified some worthwhile research questions, for example: Under what conditions does IS-TIT actually lead to improvements in teaching and instruction? How much are various countries spending to carry out pre-service training per individual? How much pedagogical instruction do trainees receive in PS-TIT? How does the performance of different TVET schools and institutes vary and what are the factors that explain this variance? Does the provision of leadership TIT meet current needs and how could it be improved? Discussion between policy-makers, practitioners

and researchers would develop and supplement this list.

Regional cooperation

As mentioned earlier, there are a variety of policies and strategies being explored across the Arab region as well as considerable experience of implementation and its challenges. This provides opportunities for policy learning and cooperation. There are many possible areas for cooperation. For example, despite considerable investment and development some Arab countries lack expertise and resources to deliver high quality TIT across *all* vocational specialisms. If they are wealthy, they may be able to recruit foreign expertise, and if they receive overseas aid they may be able to send some trainers abroad to get up-to-date technical training and industrial practice. Ways in which Arab countries can provide appropriate TIT for one another more efficiently could be explored. This may be particularly important for smaller countries, where it is difficult to provide the full range of specialisms at a high level.

Another potential area for cooperation is the development and sharing of educational resources. Arab speakers have travelled from one part of their region to another to access education and training for more than a thousand years. Consideration should be given to the development of exchange schemes whereby those undertaking TIT might be supported to acquire additional competences or occupational specialisms through study in other Arab countries.

Training teachers and trainers abroad is a strategy which can enhance competences, raise status and equip teachers and trainers to build their

careers. The King Abdullah Scholarship Program for Technical Trainers in Saudi Arabia, for example, is a high-status, high-cost programme that pays for students to be educated abroad in specified technical subjects with a view to their becoming TVET teachers when qualified. A small number of teachers in other countries, such as Tunisia, have benefited from scholarships to study in Europe. However, the considerable levels of migration within the region and the numbers of expatriate teachers and instructors employed in the Gulf States suggest that there is a great deal of international informal learning already going on.

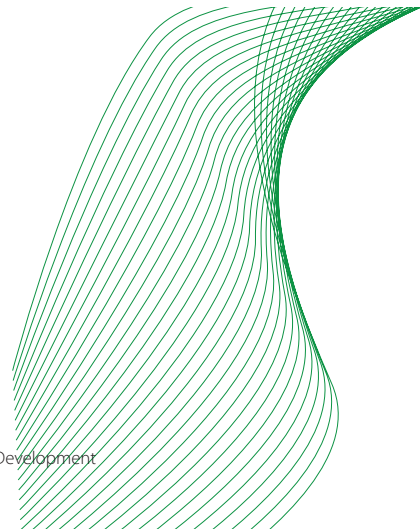
Consideration should also be given to supporting comparative research that could further inform the development of policy and practice in TIT across the Arab region. It is now commonplace in Europe that the diverse experiences of innovation in TVET are translated into guidance for policy-makers, as for example the expansion of apprenticeship.⁴⁵ Such research would not only share learning of what works but also help to build up research capacity and share research expertise.

This research has identified professionalization, pedagogical development and decentralisation as important factors for the improvement of teaching and learning in TVET. While it is possible for top-down reform to create conditions

which encourage the development of these components for effective TVET, evidence from European research suggests that top-down and bottom-up initiatives must be combined.

It is therefore important to explore options for initiatives that directly support teachers and instructors and their leaders at the level of schools, colleges, training centres and units. The work of the UNEVOC Network is important in this respect in that it helps to build networks, share and identify relevant expertise and share resources. There is a case to be made for investing further in networks that encourage communication in particular Arab countries, sub-regions or even the Arab region as a whole. Such networks could be web-based, and supported by occasional workshops, travel visits, conferences or exchanges. Web-based networks, if appropriately facilitated, could host on-line events, such as webinars or e-conferences. There may be opportunities to develop or exploit e-learning programmes. The development of such networks offers a way to empower dynamic TVET teachers who have the ambition to reshape their profession. Providing support for such networks could represent an efficient investment – particularly as UNEVOC already has appropriate expertise and networks on which to build.

45 <http://ec.europa.eu/social/main.jsp?catId=1045>





Annexes

Annex A

The Professional Academy for Teachers (PAT), Egypt

PAT was established in 2008 (Law 155/2007) to change the status of teachers – general and TVET – from civil servants to members of the ‘Teaching Profession’. Its main objective is to ensure the professional development of the teaching staff, to provide teachers with opportunities to continuously develop their capabilities and skills so that they can offer a higher level of teaching. The PAT mandate is open but in particular aims to:

- Establish quality standards for its training programmes and formulate policies and plans to professionally develop the teaching staff;
- Propose policies and systems to evaluate professional performance of the teaching staff;
- Contribute to setting quality standards for teachers’ performance and continuously develop these standards;
- Support staff training and evaluation units in schools;
- Cooperate with faculties of education, research centres and teacher training centres to achieve its objectives; and
- Manage advanced training programmes for the teaching profession through active partnerships with universities, research centres, training centers, professional development centres and NGOs.

The governing body of the Academy includes the Chairperson and a board member of the Teachers’ Syndicate; three university professors and/or education experts selected by the Minister of Education; the Director of the National Centre for Educational Research and Development; the Director of the National Centre for Examinations and Educational Evaluation; and three heads of Ministry of Education sectors. PAT reports to the Prime Minister, who appoints its director.

PAT is authorized by law to issue teaching licenses; accredit professional development providers; establish data systems and data bases with information on teachers; contribute to job descriptions of teaching posts; propose required qualifications for all teaching-related jobs; organize tests for candidates; and propose remedial training for teachers whose performance report is not satisfactory.

The professional career of teachers consists of five grades after the initial first one. Promotion from one grade to the next is subject to completing courses, writing studies and reports, performance appraisal from their employing institution, and passing tests. New teachers are appointed as ‘Assistant Teacher’ for two years, and after successfully completing the promotion requirement are upgraded to ‘Teacher’, which is considered as grade one in the career ladder. After every four years (minimum period) and after successfully completing the promotion requirements, the teacher is successively

upgraded to 'First Teacher', 'First Teacher A', 'Expert Teacher' and 'Master Teacher'. By law, promotions are accompanied by an increase of the 'Teaching Allowance', as well as by an occupational promotion on the civil servant scale, including higher salary.

Candidates for management posts, like headmasters and teaching inspectors, are selected from the teaching workforce, at appropriate grades, for a limited period of time after which they return to their profession as teachers.

Annex B

Recognition of innovation and excellence within the region – beacons!

The establishment of specialised teacher training institutions designed and equipped to deliver the right kinds of teachers represents a key strategy for change. Since 2008, the Technical and Vocational Training Corporation (TVTC) in Saudi Arabia has been committed to founding Technical Trainers Colleges which equip future teachers who have potential with the technical and pedagogical knowledge and skills to train. The already existing Technical Trainers College is run by the German international development agency GIZ and awards an internationally accredited Bachelor of Engineering Technology degree. Three more colleges (one for men and two for women) are planned. The College is committed to using learner-centred pedagogies and includes both technical and educational work experience. A 30% attrition rate is reported: 'The realistic possibility to fail a course is however something that the students have mostly not experienced before – again a point which highlights the sensitive intercultural arena the TTC is operating in.' It is

not clear whether this elite school which offers high-quality integrated engineering-pedagogic programmes under the guise of engineering will actually generate a supply of technical teachers. In order to integrate these teachers into employment, they have been recruited into a new TVET provider – the new Yanbu College of Applied Technology. Run by GIZ staff, and staffed by the best graduates from the TTC, vocational education and training is conducted in English along the lines of progressive pedagogies. Further, TTC graduates are offered a German-style 'Master of International Vocational Education and Training (MIVET)' programme, which focuses on the following specialist areas:

- **Teaching excellence**, e.g. guidance for junior trainers; employment as teacher trainer at the TTC;
- **Educational management**, e.g. school management; development of innovation; cooperative training; and
- **Science and research**, e.g. conducting research and evaluation for TVET (this is perceived as a need in Saudi Arabia).

Annex C

Context indicators of participating countries

Country	Human Development Index ⁴⁶ (HDI) Value (2010)	HDI Rank	GDP per capita ⁴⁷ (current USD) (2009)	GDP per capita rank	Population 2010 ⁴⁸ (millions)	2010 Population rank	Population 2015 ⁴⁹ (millions)
Algeria	0.677	10	4,029	12	35.5	3	38.0
Bahrain	0.801	3	26,021	4	1.3	18	1.4
Djibouti	0.402	15	1,214	17	0.9	19	1.0
Egypt	0.620	11	2,277	15	81.1	1	88.2
Iran	0.702	7	4,540	9	74.0	2	77.9
Iraq	n.a.	n.a.	2,070	16	31.7	5	37.0
Jordan	0.681	9	4,216	10	6.2	12	6.8
Kuwait	0.771	4	54,260 (2008)	2	2.7	16	3.1
Lebanon	n.a.	n.a.	8,269	8	4.2	13	4.4
Libya	0.755	5	9,714	7	6.4	11	6.6
Morocco	0.567	13	2,811	13	32.0	4	33.6
Oman	n.a.	n.a.	16,207	5	2.8	15	3.1
Qatar	0.803	2	69,754	1	1.8	17	2.0
Saudi Arabia	0.752	6	14,799	6	27.4	6	30.5
Syria	0.589	12	2,557	14	20.4	8	22.2
Tunisia	0.683	8	4,172	11	10.5	9	11.0
UAE	0.815	1	50,070	3	7.5	10	8.4
West Bank & Gaza	n.a.	n.a.	n.a.	n.a.	4.2 ⁵⁰	13	n.a.
Yemen	0.439	14	1,118	18	24.1	7	28.0

Source: UNDP.

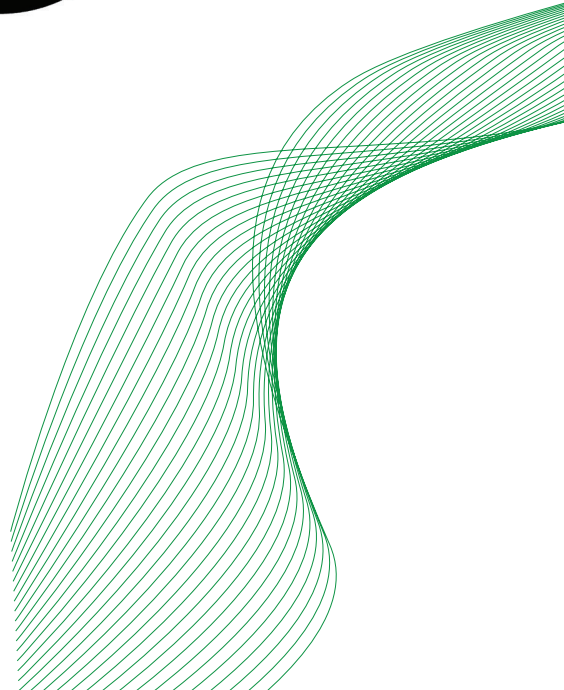
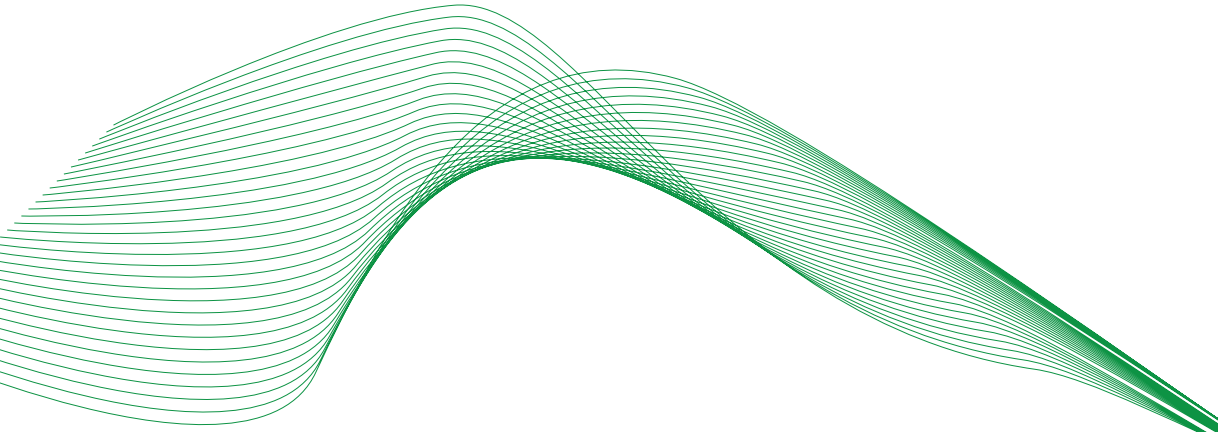
46 <http://hdr.undp.org/en/statistics/>

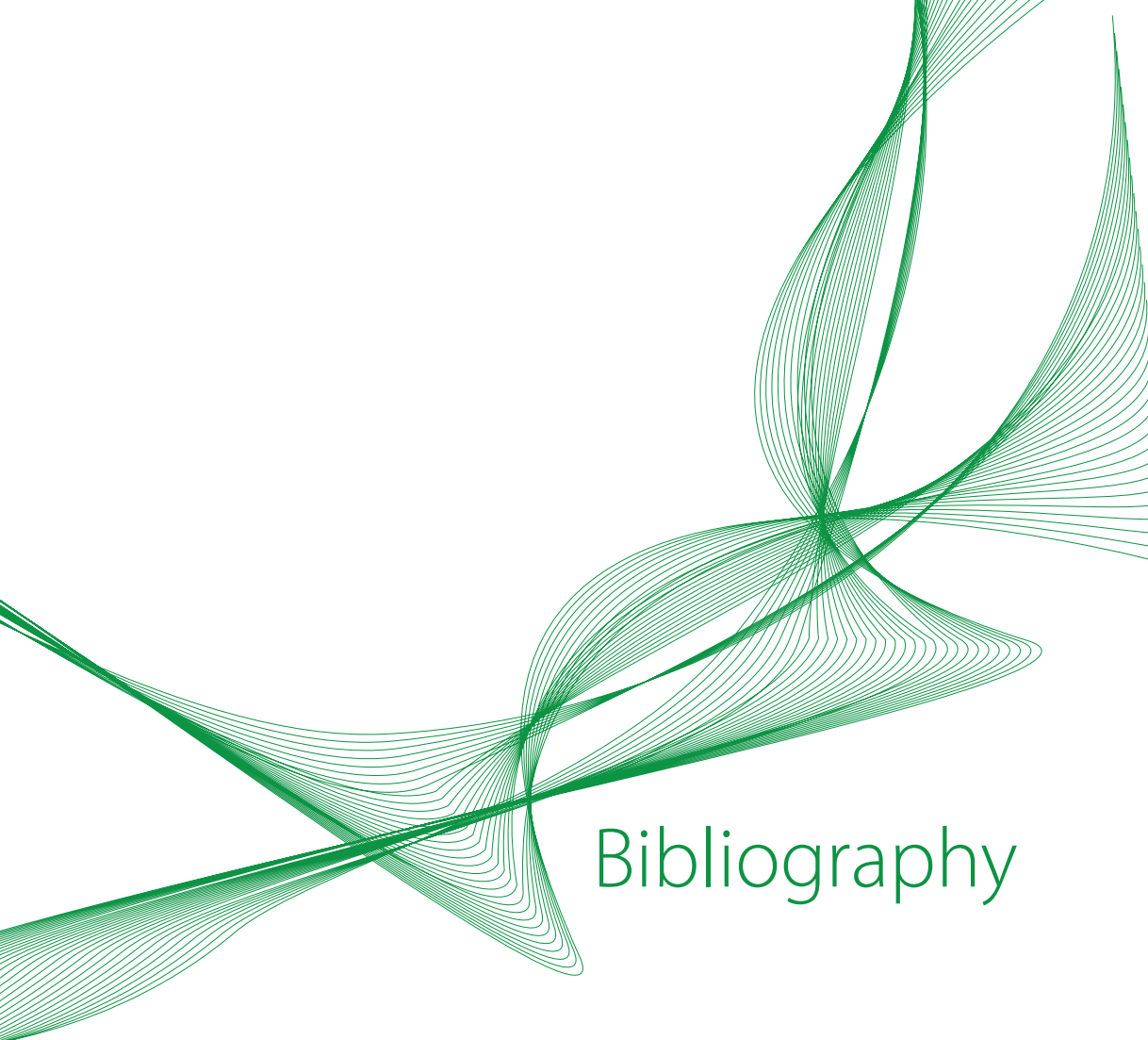
47 <http://data.worldbank.org/indicator/NY.GDPPCAP.CD>

48 http://esa.un.org/unpd/wpp/unpp/Panel_profiles.htm

49 http://esa.un.org/unpd/wpp/unpp/Panel_profiles.htm

50 <http://data.worldbank.org/indicator/SP.POP.TOTL>

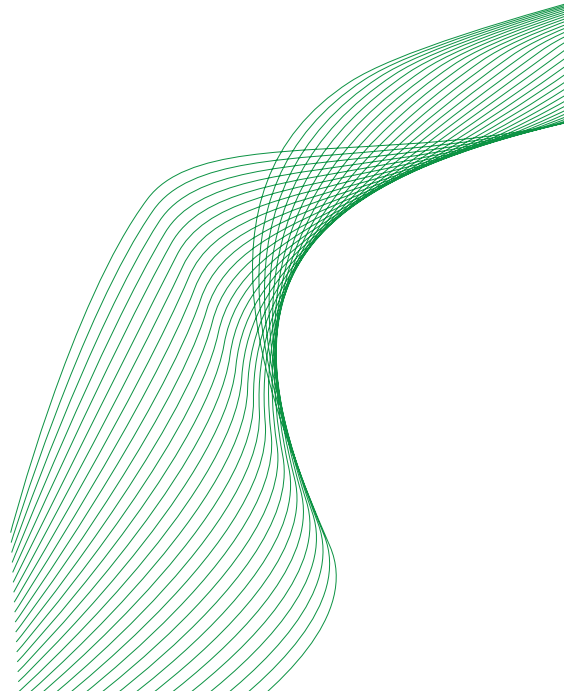
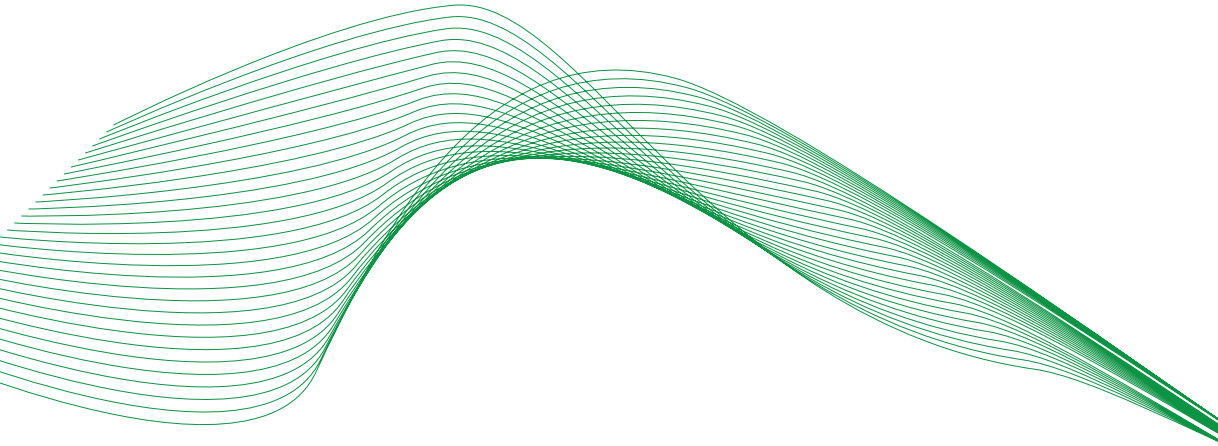




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Acronyms



ACTVET	Abu Dhabi Centre for Technical and Vocational Education and Training	Formation (National Centre for Teachers Training and Educational Instruction – Tunisia)
ADVETI	Abu Dhabi Vocational Education and Training Institute	CFA Centres de Formation par Apprentissage
ATFP	Agence Tunisienne de la formation professionnelle (Tunisian Agency for Vocational Training)	CFPA Centres de Formation Professionnelle et d'Apprentissage (Centres for Vocational Training and Apprenticeship – Algeria)
AVFA	Agence de Vulgarisation et de Formation Agricole (Agency for Agricultural Extension and Training – Tunisia)	CNEPD Centre National d'Enseignement Professionnel à Distance (National Centre for Vocational Distance Learning – Algeria)
BET	Bachelor of Engineering Technology	CPD Continuing professional development
BTC	Bahrain Teachers College	CRMEF Centres Régionaux des Métiers de l'Education et de la Formation (Regional Centres for Education and Training Professions – Morocco)
CAQA	Centre for Accreditation and Quality Assurance (Jordan)	DGTVE Directorate General of Technical and Vocational Education (Lebanon)
CAT	College of Applied Technology (Saudi Arabia)	EAFP Etablissements agréés de formation professionnelle (Accredited TVET institutions – Algeria)
CATS	Credit Accumulation and Transfer Scheme	EFA Education For All
CDCs	Centres de Développement des Compétences (Centres for Competences Development – Morocco)	EQF European Qualifications Framework
CEDEFOP	European Centre for the Development of Vocational Training	
CENAFFIF	Centre National de Formation de Formateurs et d'Ingénierie de	

ESITH	Ecole Supérieure des Industries du Textile et de l'Habillement (High School for Textile and Ready-made Garment – Morocco)	GPA	Grade Point Average
ETF	European Training Foundation	HEI	Higher education institution
ETFPA	Enseignement technique et formation professionnelle agricole (Technical Education and Vocational Training in Agriculture)	ICT	Information and communication technologies
E-TVET	Employment-Technical and Vocational Education and Training – Jordan	IEA	International Association for the Evaluation of Educational Achievement
FADES	Fonds Arabe de Développement Economique et Social (The Arab Fund for Economic and Social Development)	IECD	Institut Européen de Coopération et de développement (European Institute for Cooperation and Development)
FEP	Formation et Enseignement Professionnels (Vocational and Professional Education – Algeria)	IEP	Instituts d'Enseignement Professionnel (Institute for Vocational Education – Algeria)
GCC	Gulf Co-operation Council	ILO	International Labour Organization
GDP	Gross Domestic Product	INFEP	Institut National de Formation et d'Enseignement Professionnels (National Institute for Education and Vocational Training – Algeria)
GMR	Global Monitoring Report	INSFP	Institut National Spécialisé de Formation Professionnelle (National Institute for Vocational Training – Algeria)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)	IPNET	Institut Pédagogique National de l'Enseignement Technique (National Pedagogical Institute for Technical Education – Algeria)
GOTVOT	General Organization for Technical and Vocational Training	IS-TIT	In-service teacher and instructor training

IT	Information technologies	OECD	Organisation for Economic Co-operation and Development
KHDA	Dubai Knowledge and Human Development Authority	OFPPT	Office de la Formation Professionnelle et de la Promotion du Travail (Office for Vocational Training and Labour Promotion – Morocco)
LET	Licence d'Education Technique (Bachelor in Technical Education – Morocco)	ONTT	Office National Tunisien du Tourisme (Tunisian National Office for Tourism)
MCAST	Malta College of Arts, Science and Technology	PAGESM	Projet d'appui à la gestion des établissements scolaires du Maroc (Project to support school management in Morocco)
MENA	Middle East and North Africa	PAT	Professional Academy of Teachers (Egypt)
MFEP	Ministère de la Formation et de l'Enseignement Professionnels (Ministry of Vocational Education and Training – Algeria)	PISA	Programme for International Student Assessment
MIVET	Master of International Vocational Education and Training	PS-TIT	Pre-service teacher and instructor training
NAQAAE	National Authority for Quality Assurance and Accreditation in Education (Egypt)	PTLLS	Preparing for Teaching in the Lifelong Learning Sector (United Kingdom)
NGO	Non-Governmental Organization	PVTD	Productivity and Vocational Training Department (Egypt)
NIVE	National Institute for Vocational Education (UAE)	QA	Quality assurance
NQF	National qualifications framework		
NTTI	National Technical Training Institute (Jordan)		

REAPC	Réforme de l'éducation par le biais de l'approche par compétence (Competency-based Education Reform)	TTC	Technical Trainers Colleges (Saudi Arabia)
SABER-Teachers	System Assessment and Benchmarking of Education Results for Teachers	TTnetwork	Teacher and Trainer Network (Europe)
SADC	Southern African Development Community	TVET	Technical and vocational education and training
SDI	Staff Development Institute (Egypt)	TVTC	Technical and Vocational Training Corporation (Saudi Arabia)
SSS	Saudi Skill Standards	UAE	United Arab Emirates
STI	Staff Training Institute (Egypt)	UK	United Kingdom
TALIS	Teaching and Learning International Survey	UK NARIC	United Kingdom information centre for comparing qualifications worldwide /National Agency for the Recognition of International Credentials
TDI	Training and Development Institute (Jordan)	UNESCO	United Nations Educational, Scientific and Cultural Organization
TEFA	International Task Force on Teachers for Education for All	UNEVOC	International Centre for Technical and Vocational Education and Training
TIMSS	Trends in International Mathematics and Science Study	VETAC	Vocational Education and Training Awards Commission (UAE)
TIT	Teacher and instructor training	VTC	Vocational Training Centre
TOMOHAR	Training Organization of the Ministry of Housing and Reconstruction (Egypt)	ZeVA	German Accreditation Agency

Technical and vocational education and training (TVET) is increasingly seen as a vitally important part of education in relation to social, economic and political goals. In 2012 the world converged in Shanghai to debate current trends and future drivers of the development of TVET. This global dialogue culminated in the Shanghai Consensus; a key message of which is that professionalizing TVET staff and improving their development, living and working conditions are essential for the quality and effectiveness of TVET. Hence, Teacher and Instructor Training (TIT) should help to construct a profession of opportunity for the TVET workforce, equipping teachers, instructors and trainers with what is required in order to make TVET responsive to the economic, social and political needs of the societies they serve.

This Report focuses on the training of teachers and instructors in technical and vocational education and training (TVET) within the Arab region. A variety of TIT policies and strategies are being explored across the Arab region, as well as considerable experience of implementation and its challenges; this provides opportunities for policy learning and planning for the future. Four issues or tensions that are important for the development of an effective TIT strategy and capacity are identified: (1) public provision/market orientation; (2) diversity/coherence; (3) knowledge base for governance; and (4) professionalization. These four areas represent opportunities and barriers, but they also relate to alternative strategies: the way forward is neither simple nor unique.

This Report identifies the most prominent directions that policy-makers should consider to improve the performance of TIT in their countries. While countries have different starting points and policy-makers may be committed to different development strategies, there are nevertheless some key processes that deserve universal attention. In particular, TIT should help to build a profession of opportunity for the TVET workforce, equipping teachers, instructors and trainers with what is required in order to make TVET responsive to the economic, social and political needs of the societies they serve.

A general conclusion of this report is that effective TIT is only part of an effective TVET system. As this Report shows, even where TIT has been reformed, this may not bear fruit if teacher recruitment or monitoring of teaching has not been made effective.