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# WSIS Knowledge Community

# Building Inclusive Societies for Persons with Disabilities

# INCLUSIVE TVET IN THE CONTEXT OF LIFELONG LEARNING

SKILLS FOR WORK AND LIFE: EMPOWERING PEOPLE WITH DISABILITIES

**Background Document**

(29 October – 18 November 2015)

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# I. Background

“Technical and vocational education and training is not just preparation for work, it is preparation for life. And this is why it is so important to make it accessible to all.” (UNESCO, 2013)

An estimated 1 billion people have some kind of disability and, in our life time, every one of us will probably be temporarily or permanently impaired, especially in aging societies (WHO, 2011). An inclusive society is good for every one of us.

Since 1994, with the Salamanca Statement and Framework for Action on Special Needs Education, there has been worldwide progress in regard to inclusive education. However, people with disabilities still leave education and training earlier and are over-represented in the population group known as ‘NEET’ - neither in employment, education or training. This group experiences greater challenges than others in coping with transitions. Lower participation in education and skills development initiatives often foreshadows a lifetime of unemployment or marginal employment (EC, 2010; Kett, 2012; EADSNE, 2013). The unemployment rate for people with disabilities aged 16-64 is often at least two times higher than unemployment rate of people without disabilities (EUROSTAT, 2014; ABS, 2015; BLS, 2015).

In this context it’s crucial to achieve United Nations 2030 Agenda Sustainable Development Goal (SDG) 4 “inclusive and equitable quality education and lifelong learning for all” and target 5 of SDG 8 “employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value”, both in line with the Convention on the Rights of Persons with Disabilities(2006), particularly articles 24 on education and 27 on work and employment. The Incheon Declaration: Education 2030 (2015a) also recognises education as essential to guarantee the realisation of the other human rights, and highlights the importance of inclusion and lifelong learning for all.

Increasingly, technical and vocational education and training (TVET) is seen from a lifelong learning perspective, promoting competencies for work and life and ensuring that all youth and adults have equal opportunities to learn (UNESCO, 2015b).

The ability to learn continuously isn’t new, it’s one of the human characteristics that has allowed us to adapt and succeed over time. The increasing focus on lifelong learning is rooted in the rapid changes taking place in society, and highlights how crucial it is to promote every individual’s right to education in order for them to develop knowledge, skills and attitudes (UNESCO, 2012b).

Almost 50 years ago the concept emerged of a “learning society” linked with the information technology (IT) revolution. This made it possible, in principle, for everyone to receive information and learn. Nowadays people are being forced to learn, informally and almost incidentally, just to keep the pace with technological innovations. Vulnerable groups (e.g. people with disabilities) are often left behind when, ironically, IT and universal design could help them to be included (Weber & Zink, 2014). “The social situations of competition, innovation and rapid change generated by globalisation in a knowledge economy have led to the emergence of lifelong learning“(Jarvis, 2007).

TVET systems have had to adapt to the demands of our knowledge-based society, from a traditional focus mainly on work competencies, to a new holistic, humanistic and sustainable development context (Marope *et al*, 2015).

Access to TVET is a sensitive issue for people with disabilities. In many countries that implemented inclusive education there are still segregated TVET settings with few options for learners with special educational needs and learning disabilities (Pohl & Walther, 2007). Improvements are needed to truly include all, especially people with the most challenging disabilities, which require innovation and quality improvement in inclusive TVET, as highlighted in the Shanghai Consensus (2012a). Inclusive education and quality are reciprocal, so an inclusive setting can make a significant contribution to the quality of education for all learners (European Agency for Development in Special Needs Education, 2011).

Quality in TVET is essential for the continuous improvement of the system but also for increasing its attractiveness, as TVET is too often seen as the “poorer cousin” of academic education. Communities of practice, like EQAVET *-* European Quality Assurance in Vocational Education and Training - reinforced the development and improvement of quality assurance in TVET.

For TVET quality improvement, it’s essential to choose the right indicators in order to collect and analyse relevant data. All countries collect school data but this frequently does not include any in-depth information on students with disabilities (UNESCO, 2009). Also, there is often no specific data on TVET and people with disabilities, or the criteria for gathering the information isn’t standardised (e.g. labour market data for people with disabilities is available through national censuses or large scale surveys but is rarely disaggregated by type of disability or geographic location (Kett, 2012).

Monitoring implementation and evaluating outcomes is pivotal in any quality system, and an essential part of the quality cycle. In inclusive TVET there’s a need to globally define methods, indicators and tools to gather data that is focused on people with disabilities.

One important innovation has been National Qualification Frameworks (NQFs), which permit different qualifications to be compared and inform learners on how to progress from one level to another, enabling mobility between different education paths (formal, non-formal or informal) including TVET. Today, three quarters of countries in the world have implemented or are developing an NQF (UNESCO, 2015c). NQFs in some countries have led to the development of distinctive features that are not normally found in traditional qualifications systems. The most important and distinctive characteristic of these NQFs is that the qualifications they contain are viewed as being independent of the institutions that offered the programmes leading to the qualifications. Other distinctive features are modular qualifications which allow the accreditation or certification of a component part of the larger qualification (Tuck, 2007). Partnerships and stakeholders involvement, in order to match skills imparted by the TVET system with those demanded by the workplace, is also characteristic. Some countries are developing comprehensive lifelong learning strategies to ensure the permeability between various forms and levels of learning and from education and training to work (European Commission, 2015).

Information and guidance play a vital role in helping people who are vulnerable to prepare for transitions in the new global labour market. Guidance is very important in an educational context, because promoting career exploration is also a way of promoting learners engagement in school. This in turn is linked with academic success and early dropout prevention (Moura *et al*, 2014), especially important for more vulnerable learners.

Vocational assessment should be an important element before TVET and before the transition process, including transition to work. The European Agency for Development in Special Needs Education (2012) recommends that focus must be placed on learners’ vocational abilities instead of on their disabilities. Lifelong career guidance and counselling must always be available to all - not just when there are transitions (UNESCO, 2002) - especially for people with disabilities.

Only an ongoing assessment of both the working environment and the learners’ skills would allow TVET to play its role “in combating multiple forms of disadvantage, and overcoming barriers to entry and progress in the world of work and in future learning.” (UNESCO, 2012a)

# II. Overall aim of this discussion

The 2030 Agenda for Sustainable Development, recently adopted by the United Nations General Assembly, provides an integrated and universal vision of the future, “based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable”.

Ambitions are high, including for education, which is integral to the 2030 Agenda, as Sustainable Development Goal 4, ‘**Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all’.** Within SDG 4, there are specific targets regarding technical and vocational education and training.Education and training are also essential for the achievement of the other Sustainable Development Goals, including SDG 8 ‘**Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all’**. Under SDG 8, one target is ‘by 2030 to achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value’.

The [United Nations Convention on the Rights of People with Disabilities (2006)](http://www.un.org/disabilities/convention/conventionfull.shtml), signed so far by 160 countries and regional organizations, states that “States Parties shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities” (article 24. 5).

Internationally, TVET is increasingly seen as part of a lifelong learning approach to the development of education and training systems. TVET promotes knowledge, skills and attitudes for work and life. In different regions of the world, TVET is recognized as a significant element in broad policy strategies. The [“Europe 2020 strategy for smart, sustainable and inclusive growth”,](http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=URISERV:em0028&from=DE) for the European Union (EU) is one example. In this line an ongoing [Written Declaration by the European Parliament on “Promoting inclusive education systems”(2015)](https://www.google.es/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCEQFjAAahUKEwjJgr_S2eLIAhVIWhQKHRY9DX8&url=http%3A%2F%2Fwww.europarl.europa.eu%2Fsides%2FgetDoc.do%3Ftype%3DWDECL%26reference%3DP8-DCL-2015-0029%26format%3DPDF%26language%253) outlines that EU Member States have already experienced positive results from implementing inclusive education systems and that access and sustained participation in the education system enhance equal opportunities for all, social inclusion and employment opportunities.

The aim of this discussion is to analyse TVET policies, systems, programmes and practices, mainly through the perspective of social equity and inclusiveness, with the focus on people with disabilities, and to consider what can be done to ensure that TVET fulfils its potential contribution to Agenda 2030, including SDG 4 and SDG 8, as well as being in line with the fundamental principles of the [United Nations Convention on the Rights of Persons with Disabilities](http://www.un.org/disabilities/convention/conventionfull.shtml)

Three interconnected topics are in focus (1) **Advancing inclusive and equitable access to TVET** (2) **Improving quality and relevance in TVET to support transitions**; and (3) **Transforming TVET for inclusive and sustainable societies**. Participants are asked to identify success factors for policies, programmes and practices, to explore new trends, and to provide insights on how to collect relevant data that can be used by policy makers and practitioners. Contributions are encouraged from all regions of the world so that evidence and experience can inform recommendations for the future.

**Reading through all of the questions for weeks 1, 2 and 3 in advance is recommended since it can be useful to organize your contributions to the different issues.**

# III. Discussion topics and questions for weeks 1, 2 and 3.

## TOPIC 1 – Advancing inclusive and equitable access to TVET

## (Week 1: 29 October – 4 November)

We live in a complex and fast-changing world that increasingly requires individuals to develop their knowledge, skills and attitudes throughout life with education and TVET.

Despite remarkable progress in inclusive education, people with disabilities often leave education and training earlier than other groups and are overrepresented in the population of NEETs – those Not in Education, Employment or Training. For example, in the 28 countries of the European Union (EU-28), according to Eurostat, around 40% of people aged 15-34 with limitations in work caused by a LHPAD\* (longstanding health problem and/or a basic activity difficulty) are NEET, 15% more than the general population. The participation of people with disabilities in continuing education and training is also lower, in EU-28 only 9% of people with a LHPAD aged 15-64 participate in education and training, compared with 21% for the general population with the same age (Eurostat, 2014).

Improvements in inclusive TVET are possible and do occur, with some key success factors being recognised across countries, and giving evidence that what is good and efficient practice for people with disabilities is, usually, a good practice for all learners (European Agency for Special Needs and Inclusive Education, 2013).

*\*Term used by Eurostat*

### 1. 1. What are the current challenges experienced by people with disabilities?

TVET can play an important role in the development and utilisation of skills and capabilities and learning pathways, especially for persons with disabilities who are vulnerable to lack of job security or jobs/careers for life. However, TVET systems and programmes do not always open up opportunities for people with various disabilities in the world of work. What are the current challenges experienced by people with disabilities in accessing TVET, at legal, policy and programmatic levels? From your experience, how accessible or inaccessible is TVET (formal, non-formal and informal) for people with various disabilities? Are the issues the same or different from a gender perspective?

### 1.2 – What opportunities exist for initial and continuing TVET learning? How can the role of TVET in lifelong learning for people with disabilities be improved?

There is a lot of scope for improvement in initial and continuous TVET for people with disabilities, including in apprenticeships and work-based learning. What opportunities currently exist and what are the shortcomings in the current situation? Can you share your experience of policies, programmes, projects or initiatives that have successfully addressed some of these challenges? What ideas do you have to improve the role of TVET in lifelong learning for people with disabilities?

### 1.3 – How to ensure inclusive and equitable access to TVET (formal, non-formal and informal)?

At the country level, what do we know about the participation of people with disabilities in initial and continuing TVET? What is the reality in your country? What are the principle sources of information about the inclusion or exclusion of people with disabilities in TVET in its various forms? How responsive are initial and continuous TVET programmes to social diversity? How can discrimination and other difficulties be addressed so that TVET is more responsive to the needs and aspirations of individuals?

## TOPIC 2 – Improving quality and relevance in TVET to support transitions

## (Week 2: 5 – 11 November)

People with disabilities often experience difficulties during transitions between education and the world of work. Sometimes TVET programmes are insufficiently related to the changing needs of the labour market and, despite the best of intentions, do not always provide people with disabilities with the knowledge, skills and attitudes needed to make successful transitions, according to personal and occupational aspirations.

Participants at the Third International Congress on TVET held in Shanghai in May 2012 recommended that efforts be made ‘to enhance quality across the various types of TVET and in the multiple settings where it takes place, including through the definition of quality standards and benchmarks’, and to ‘Take innovative measures to provide quality and inclusive TVET, especially to disadvantaged groups including learners with disabilities, marginalised and rural populations, migrants and those in situations affected by conflict and disaster’.

Furthermore the commitment to inclusive and equitable quality education is highlighted by SDG Goal 4, and there is a specific target to ‘ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university’.

### 2.1 – What are the implications of labour market changes for people with disabilities?

What do we know about the labour market experiences of people with disabilities and the emerging trends in the world of work? What are the main obstacles that people with disabilities encounter in the labour market? Are some occupations or fields more difficult than others to transition to and succeed in? To what extent do recent changes, for example flexible working hours, tele-working, technologies and the rise in self-employment, make it easier for people with disabilities? Do other labour market trends create new difficulties? What are the differences in the formal and non-formal economy? What labour market information and analyses are needed to support transitions of people with disabilities? In your experience, to what extent is the design of TVET policies and programmes informed by evidence about labour market trends? What could be done in the future to advance equal opportunities, both in TVET and the world of work?

### 2.2 – What are the challenges regarding the quality and relevance of TVET for people with disabilities?

What do you see as the challenges regarding the quality and relevance of TVET for people with disabilities? How can TVET be more closely articulated within education and training systems, and included more broadly to ensure flexible pathways and facilitate transitions of TVET learners to the world of work and to higher levels of education? What are the implications for the development of literacy and numeracy, and transversal skills such as problem-solving, critical-thinking and entrepreneurial skills as part of lifelong learning strategies? What are the implications for assessment systems at various levels? Please share what you consider to be the main issues for policies, programmes and practices, and present any good practices that you are aware of. What new opportunities do you think they can open for people with disabilities?

### 2.3 – How can stronger communication and cooperation between stakeholders improve the quality and relevance of TVET? How should this impact transitions?

People with disabilities and other vulnerable groups face big challenges in transition periods. One of the most challenging is transition from TVET to work, but other transitions can also be difficult. At the local level there are many practical examples of effective cooperation between actors in the labour market, education, health and social sectors but, at the policy level, many obstacles persist (e.g. coordination between ministries). How can TVET systems better utilise inter-sectoral networks and partnerships at various levels to be more responsive to diversity and the changing needs of individuals, communities and employers? What is the role of private sector actors? What incentives are needed?

What is the reality of TVET governance at various levels in your country? According to your experiences, which initiatives are or could be most effective to improve transitions to work and further learning? What arrangements exist for quality assurance and quality enhancement? How might recent experiences of qualification systems, including Qualifications Frameworks, support learning pathways for people with disabilities and the horizontal and vertical mobility of learners and workers?

### 2.4 – What is the importance of guidance in life transitions?

What information is needed to support the decision-making of people with disabilities as regards education, training and employment? Beyond information, problem solving and analytical skills are needed to assess opportunities for further learning and working. Given that traditional careers are disappearing and new opportunities are emerging, the role of information and guidance in a rapidly changing labour market is crucial for persons with disabilities. What is the quality of the information, and what are the sources of advice and guidance on TVET and opportunities in the changing world of work? How can career information and guidance best be provided, with which tools and methods, and by whom?

## TOPIC 3 – Transforming TVET for inclusive and sustainable societies

## (Week 3: 12 – 18 November)

 In many countries around the world there are steadily rising expectations placed upon TVET systems to address multiple sustainable development challenges, ranging from gender disparities, to youth unemployment, to climate change. However TVET systems are experiencing difficulties meeting these demands. Simply scaling-up TVET in its current state of unmet potential may not be advisable, and this implies the transformation of TVET.

TVET policies, systems and programmes have often sought to address the needs of disadvantaged and vulnerable groups, including people with disabilities. Sometimes an integrated approach has been taken, in which institutions and programmes seek to cater for the full diversity of learners. In other cases, learning has been organised separately to meet the needs of different target groups. Critics observe that, in the past, TVET sometimes perpetuated inequalities and various forms of social segregation. Until recently, few TVET systems took sustainability into account.

Today’s world requires inclusive TVET that is relevant to the needs of diverse learners and a wide range of occupational fields, and that has a stronger focus on transversal skills (e.g. communication, problem-solving). TVET (formal, non-formal and informal) should support the development of low, middle and high-level skills. Whilst TVET is a sub-sector, it is also a transversal sector across all types of education and training. Furthermore, TVET has a central role to play in the 2030 Agenda for Sustainable Development.

###  3.1   – How could TVET be transformed to support the needs of all youth and adults?

What do you understand by the transformation of TVET? Some TVET programmes have proved able to adjust to changing opportunities in the world of work, whereas others appear supply-driven and less responsive to the needs of learners or employers. How can TVET do more to empower people with disabilities so as to promote lifelong learning opportunities and decent work for all women and men, including for young people and persons with disabilities? How should TVET be transformed so that it can unleash its potential contribution to inclusive and sustainable societies?

### 3.2   - How can TVET became more inclusive?

Since 1994, when the Salamanca Statement and Framework for Action on Special Needs Education was adopted, there has been progress in addressing social exclusion. However, in many countries, progress seems to stall when around 90% of all students are in mainstream schools. An extra effort must be made to really include all in education and lifelong learning. What strategies relating to TVET can ensure that no-one is left behind and excluded from opportunities? Can you share existing examples or suggestions for the future?

### 3.3   – How to monitor the progress on inclusive TVET (methods, indicators, tools)?

“A society cannot be equitable unless all children are included, and children with disabilities cannot be included unless sound data collection and analysis render them visible.” (UNICEF, 2013)

Many countries collect generic data on inclusive education but the criteria for gathering information is not yet standardised (e.g. the definition of ‘disability’). There is often no specific data on TVET for people with disabilities. Where data exists, it is not comparable between countries. What are the methods and criteria used to access the progress on inclusive education? What are the main sources of information about people with disabilities and their social and economic prospects at various levels (e.g. censuses, household surveys, labour force surveys, others)? How far is this information used to inform policy and programmes? Is there specific monitoring for TVET by different stakeholders? What labour market information should be collected and analysed to support the transformation of TVET for inclusive and sustainable societies? What do you see as the main knowledge gaps? What are the research priorities, and how could research capacities in this domain be further strengthened at all levels?

# IV. References

ABS (2015). *4433.0.55.006 - Disability and Labour Force Participation, 2012*. Australian Bureau of Statistics. [http://www.abs.gov.au/ausstats/abs@.nsf/mf/4433.0.55.006](http://www.abs.gov.au/ausstats/abs%40.nsf/mf/4433.0.55.006)

BLS (2015) *Persons With A Disability: Labor Force Characteristics – 2014*. Bureau of Labor Statistics – U.S. Department of Labor <http://www.bls.gov/news.release/pdf/disabl.pdf>

CEDEFOP (2011) *The benefits of vocational education and training: Luxembourg:* Publications Office of the European Union. <https://www.european-agency.org/sites/default/files/vet-report_en.pdf>

ETF (2012) Proposed Indicators for Assessing Technical and Vocational Education and Training. Inter-Agency Working Group on TVET Indicators.

[http://www.etf.europa.eu/webatt.nsf/0/E112211E42995263C12579EA002EF821/$file/Report%20on%20indicators%20April%202012.pdf](http://www.etf.europa.eu/webatt.nsf/0/E112211E42995263C12579EA002EF821/%24file/Report%20on%20indicators%20April%202012.pdf)

European Agency for Development in Special Needs Education (2011) *Key Principles for Promoting Quality in Inclusive Education – Recommendations for Practice*, Odense, Denmark: European Agency for Development in Special Needs Education <https://www.european-agency.org/sites/default/files/key-principles-for-promoting-quality-in-inclusive-education-recommendations-for-practice_Key-Principles-2011-EN.pdf>

European Agency for Development in Special Needs Education (2012) *Vocational Education and Training: Policy and Practice in the field of Special Needs Education – Literature Review*. Odense, Denmark: European Agency for Development in Special Needs Education.

European Agency for Development in Special Needs Education (2013) *European Patterns of Successful Practice in Vocational Education and Training – Participation of Learners with SEN/Disabilities in VET*. Odense, Denmark: European Agency for Development in Special Needs Education. <https://www.european-agency.org/sites/default/files/vet-report_en.pdf>

European Commission (2015) *Draft 2015 Joint Report of the Council and the Commission on the implementation of the Strategic framework for European cooperation in education and training (ET2020)*. Brussels
<http://www.eqavet.eu/gns/library/policy-documents/policy-documents-2015.aspx>

European Commission (2010): *Europe 2020: the European Union strategy for growth and employment* (Europa 2020).
<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=URISERV:em0028&from=DE>

European Commission (2010). *European Disability Strategy 2010-2020: A renewed commitment to a barrier-free Europe*. Brussels
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0636:FIN:en:PDF>

European Commission (2009): [*Strategic Framework for European Cooperation in Education and Training*](http://eur-lex.europa.eu/legal-content/EN/AUTO/?uri=celex:52009XG0528%2801%29)(ET 2020). <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV:ef0016>

EUROSTAT (2014) Disability statistics - access to education and training.
<http://ec.europa.eu/eurostat/statistics-explained/index.php/Disability_statistics_-_access_to_education_and_training>

European Network on Inclusive Education and Disability - incluD-ed (2014): *Contribution by the European Network on Inclusive Education & Disability, incluD-ed to the European Public Consultation on the Europe 2020 Strategy*. <http://www.includ-ed.eu/resource/contribution-european-network-inclusive-education-disability-includ-ed-european-public-cons>

European Network on Inclusive Education and Disability - incluD-ed (2014): *Statement on Promoting Inclusive Education Systems in Europe*. <http://www.includ-ed.eu/resource/statement-promoting-inclusive-education-systems-europe>

European Parliament (2015): *Written declaration P8\_DCL(2015)0029 on promoting inclusive education systems.* <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fNONSGML%2bWDECL%2bP8-DCL-2015-0029%2b0%2bDOC%2bPDF%2bV0%2f%2fEN>

Grammenos, S. (2013) *European comparative data on Europe 2020 & People with Disabilities*. Cornell University <http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1569&context=gladnetcollect>

Hoeckel, K. & Schwartz, R. (2010) Learning for Jobs: OECD Reviews of Vocational Education and Training - Germany. OECD <http://www.oecd.org/germany/45668296.pdf>

ILO (2013) *Inclusion of people with disabilities in vocational training, a practical guide*. Geneve: International Labour Office.

Jarvis, P. (2007) *Globalisation, Lifelong Learning and the Learning Society*. New York: Routledge.

Kett, M. (2012) *Skills development for youth living with disabilities in four developing countries*. Paper commissioned for the EFA Global Monitoring Report 2012, Youth and skills: Putting education to work. UNESCO. <http://unesdoc.unesco.org/images/0021/002178/217882e.pdf>

Marope, P., Chakroun, B. & Holmes, K. (2015) *Unleashing the Potential: Transforming Technical and Vocational Education and Training.* Paris: UNESCO. <http://unesdoc.unesco.org/images/0023/002330/233030e.pdf>

Moura, H., Breia, G., Pereira, E., Henriques, I. & Fonseca, P. (2014) *Students engagement in school and guidance activities*. In Veiga, F. (Ed.) Students’ Engagement in School: International Perspectives of Psychology and Education. Lisbon: Instituto de Educação - Universidade de Lisboa. <http://www.ie.ulisboa.pt/pls/portal/docs/1/496841.PDF>

Pohl, A. & Walther, A. (2007) Activating the disadvantaged. Variations in addressing youth transitions across Europe. *International Journal of Lifelong Education 26(5)*: 533-553.

Tuck, R. (2007) *An Introductory Guide to National Qualifications Frameworks: Conceptual and Practical Issues for Policy Makers*. Geneva: International Labour Organization.
[http://www.ilo.org/wcmsp5/groups/public/@ed\_emp/@ifp\_skills/documents/instructionalmaterial/wcms\_103623.pdf](http://www.ilo.org/wcmsp5/groups/public/%40ed_emp/%40ifp_skills/documents/instructionalmaterial/wcms_103623.pdf)

UNESCO (2002) *Technical and Vocational Education and Training in the 21st Century: New roles and challenges for guidance and counselling*. Paris: UNESCO.
<http://unesdoc.unesco.org/images/0013/001310/131005e.pdf>

UNESCO (2006) *Participation in formal technical and vocational education and training programmes worldwide: an initial statistical study*. Bonn: UNESCO-UNEVOC.
<http://www.unevoc.net/fileadmin/user_upload/pubs/UNEVOC_UIS_Report.pdf>

UNESCO (2009) *Towards Inclusive Education for Children with Disabilities: A Guideline*. Bangkok: UNESCO. <http://www.uis.unesco.org/Library/Documents/disabchild09-en.pdf>

UNESCO (2012a) *Shanghai Consensus. Recommendations of the third international congress on TVET: Transforming TVET: Building Skills for Work and Life*. Shanghai, 14–16 May 2012. <http://www.unevoc.unesco.org/fileadmin/up/217683e.pdf>

UNESCO (2012b) *UNESCO GUIDELINES for the Recognition, Validation and Accreditation of the Outcomes of Non-formal and Informal Learning.* Hamburg: UNESCO Institute for Lifelong Learning. <http://unesdoc.unesco.org/images/0021/002163/216360e.pdf>

UNESCO (2012c) *Transforming Technical and Vocational Education and Training: Building skills for work and life.* Paris: UNESCO. <http://unesdoc.unesco.org/images/0021/002160/216065e.pdf>

UNESCO (2013) *Shanghai Update, Issue No. 1*, *June 2013*. Bonn: UNESCO-UNEVOC. <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/shanghaiupdateJune2013.pdf>

UNESCO (2015a) *Incheon Declaration - Education 2030: Towards inclusive and equitable quality education and lifelong learning for all.* Paris: UNESCO. <http://unesdoc.unesco.org/images/0023/002338/233813M.pdf>

UNESCO (2015b) *Final Report containing a draft text of the Recommendation concerning Technical and Vocational Education and Training.* Paris: UNESCO. <http://unesdoc.unesco.org/images/0023/002325/232598e.pdf>

UNESCO (2015c) Global Inventory of Regional and National Qualifications Frameworks*.* Hamburg: UNESCO Institute for Lifelong Learning. <http://uil.unesco.org/fileadmin/keydocuments/LifelongLearning/en/Global%20Inventory%20of%20Regional%20and%20National%20Qualifications_v1.pdf>

United Nations (2015) *Transforming our world: the 2030 Agenda for Sustainable Development.* Document Number: A/70/L.1 <http://www.un.org/ga/search/view_doc.asp?symbol=A/70/L.1&Lang=E>

United Nations (2006): *Convention on the Rights of Persons with Disabilities*. <http://www.un.org/disabilities/convention/conventionfull.shtml>

UNICEF (2013) *Children with disabilities*. New York: UNICEF

Weber, H. & Zink, K. (2014) *Boon and Bane of ICT Acceleration for Vulnerable Populations*. In C. Korunka and P. Hoonakker (eds.): The Impact of ICT on Quality of Working Life, DOI 10.1007/978-94-017-8854-0\_11, Springer Science+Business Media Dordrecht 2014.

WHO (2011) *World Report on disability*. Malta: World Health Organization.

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