Introduction

“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 live with some form of disability and, in our lifetime, 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). 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 SDG 8, Target 5 “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”, both in line with the Convention on the Rights of Persons with Disabilities (UNESCO, 2006) article 24 on education and 27 on work and employment. The Incheon Declaration: Education 2030 (UNESCO, 2015a) also recognises education as essential for guaranteeing the realisation of 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 competences for work and life and ensuring that all young people and adults have equal opportunities to learn (UNESCO, 2015b).

The role of TVET empowering groups experiencing exclusion has been stressed over the years, and many examples show that it improves their potential productivity, employment and income-earning prospects (UNESCO, 2004; ILO, 2008; European Agency for Development in Special Needs Education, 2012).

Access to TVET is very sensitive for people with disabilities. In many countries that implement 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 those with the most challenging disabilities, which require innovation and quality 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).

**Scope and objectives of the online discussion**

The overall aim of the three-week online discussion was to analyse TVET policies, systems, programmes and practices for people with disabilities, mainly through the perspective of social equity, and to consider what can be done to ensure that TVET fulfils its potential contribution to Agenda 2030, including SDG 4 and SDG 8 "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". Between 29 October and 18 November 2015, 30 participants from 21 different countries, covering the 5 continents, posted 102 comments, and many more attended the online discussion at WSIS Knowledge Community – Building Inclusive Societies for Persons with Disabilities.

**The discussion focused on three interconnected topics:**

- **TOPIC 1** – Advancing inclusive and equitable access to TVET;
- **TOPIC 2** – Improving quality and relevance in TVET to support transitions, and;
- **TOPIC 3** – Transforming TVET for inclusive and sustainable societies.

Participants were asked to identify success factors for policies, programmes and practices, to explore new trends, and to provide insights into how to collect relevant data that can be used by policymakers and practitioners.
Summary of the discussion

The background document to the online discussion asked some fundamental questions about the bigger picture of inclusive TVET, namely regarding access, life transitions and TVET challenges to meet the triple external demands: economic growth, social equity and sustainability. This was the frame through which the subsequent discussions were mediated.

TOPIC 1 – Advancing inclusive and equitable access to TVET

The discussion started with a reflection on today’s complex and fast-changing world, which increasingly requires individuals to develop their knowledge, skills and attitudes throughout life with education and TVET. Questions focused on topics such as challenges experienced by people with disabilities, inclusive and equitable access to TVET and improving the role of TVET in lifelong learning. Participants identified current challenges, including technical and attitudinal barriers, and proposed lines of action to advance inclusive and equitable access to TVET, namely:

- ICT accessibility

Information and Communications Technology (ICT) has an ubiquitous impact across all sectors of activities, all over the world. Being excluded from ICT-enabled applications, e.g. electronic kiosks, implies being shut off from the information society, from accessing essential public services and, in consequence, losing the opportunity of living an independent life (ITU, 2013). The need to release rapid ICT devices and software led, many times, to the exclusion of adaptations for vulnerable groups (Weber & Zink, 2014); but if these adaptations were standard and universal, it would be much easier and cheaper for manufacturers/software companies to take them into account. ICT potential for people with disabilities would dramatically improve with definition of global accessibility standards, e.g. Web Content Accessibility Guidelines (WCAG), which help to include in every new ICT product universal design principles.

Some projects in this field were highlighted, for example W3C’s WCAG which help authors to create content that is accessible to people with disabilities, and ICT for Information Accessibility in Learning (ICT4IAL), a network of partners with the aim of developing and trialing practical guidelines to foster accessibility of information in learning (European Agency for Development in Special Needs Education, 2014). Removing barriers to accessing ICT by people with disabilities plays a crucial role in inclusive TVET and lifelong learning.
• Social awareness

Prejudice and stigma still represent a big challenge for people with disabilities. Awareness campaigns, for example showing successful inclusions that valorise people’s potential and recognise the role of environmental factors in the creation of disability as well as the role of health conditions – a major characteristic of the biopsychosocial approach – helps to change mentalities. Social media is very influential; and with successful examples of people with disability working in leadership roles, the enduring subtle discrimination that takes the form of setting low expectations by many in the community should erode with time.

• Empowerment

The ability to make choices, from early childhood on, and less restrictive life conditions, for example inclusive schools instead of segregated schools, produce higher levels of self-determination and adaptive functioning, with an impact on self-esteem. Unfortunately, inclusive education isn’t a reality for all; despite significant progress since the Salamanca Statement (1994) and the UN Convention on the Rights of Persons with Disabilities, most countries have hybrid policies and are still improving their inclusionary practices. Empowering people with disabilities is critical, and TVET is instrumental in promoting competences for work and life.

• Labour market access

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. Facilitating labour market access is necessary for changing stereotypes associated with people with disabilities that lead to employment discrimination. Partnerships between TVET institutions/schools and companies are extremely important for improving the image and access of people with disabilities to the labour market, e.g. enhancing labour practices, workplace tutors or job orientation. Anti-discrimination legislation also improves labour market access but, despite many initiatives, the unemployment rate of people with disabilities is still much higher than the rest of the population.
TOPIC 2 – Improving quality and relevance in TVET to support transitions

Participants at the Third International Congress on TVET held in Shanghai recommended that efforts should be made to take innovative measures to provide quality and inclusive TVET, especially to disadvantaged groups, including learners with disabilities. One challenge for TVET and education in general is that our modern world requires constantly new abilities but we have no effective way of anticipating ability-expectation trends nor their potential disabling effects on people (Wolbring & Burke, 2013). There is a need to invest in mechanisms for identifying the skills requirements of the future, developing stronger capacities and tools to provide foresight and anticipate change. Greater attention is also required in building trainees’ ability to learn how to learn (UNESCO, 2015d).

Improving the role of TVET in lifelong learning for people with disabilities requires anti-discrimination legislation, universal design with disability viewed as part of human diversity, and availability of inclusive educational and training opportunities for all. There is a large consensus on the importance of mainstream environments that allow people with disabilities to be included in their original settings. Participants identified during the online discussion the following factors for improving quality and relevance in TVET to support transitions:

- **Legislation**

  Legal frameworks on inclusive education must be in place and schools/TVET centres receive the required support to deal with diversity. Anti-discrimination legislation, with emphasis on learning and working environments, will also promote equal opportunities and life perspectives crucial for both students’ self-esteem and their engagement in the educational process.

- **Certification/NQF**

  The existence of inclusive National Qualification Frameworks (NQFs) 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. NQFs in some countries have led to the development of distinctive features, e.g. modular qualifications which allow the accreditation or certification of a component part of the larger qualification (Tuck, 2007), raising system flexibility and improving access for people with disabilities. Some examples were highlighted during the discussion, such as the “NQF Inclusive” project, which developed a model for accreditation and certification of basic vocational education training courses for disadvantaged people via the European NQF. Official certification is also of great help when a person applies for a job.
• **Person-centred approach**

Focus must be placed on the learner’s capabilities and the pedagogical methods and materials; and even the curriculum must be flexible enough to allow adaptations, which should be written in the learner’s individual plan. Universal design and a tailored individual path are needed for fully inclusive TVET. One expert, however, stressed that we must avoid radical opposition between mainstream settings, for example a company in an open market versus a protected environment, e.g. a sheltered workshop, and promote a more fluid approach focused on the person's competences and life project.

• **Educational and support staff training**

Teachers and support staff should be qualified and have further training opportunities to ensure quality in education and a learner-centred approach. Furthermore, a whole-school approach to promoting positive behaviour towards people with disabilities outside as well as inside the classroom is desirable; therefore, training should be extended to non-teaching members of staff. Changing attitudes of TVET staff and students, including those with disabilities, is crucial to improving inclusive and equitable TVET.

• **Partnership**

Coordinated involvement of all stakeholders in the TVET process is crucial to achieving quality and relevance. All partners should be involved in the quality cycle, to promote continuous improvement. There are many benefits to networking structures; for example, successful practical training experiences in local companies convert into jobs after graduation and this, slowly but steadily, changes the social image of people with disabilities. Follow-up support activities must also be provided for as long as required, addressing the needs of employers and young graduates in order to maintain employment and build confidence between partners. Stakeholder involvement, in order to match skills imparted by the TVET system with those demanded by the workplace, is also vital to improving TVET relevance.

• **Career guidance**

Career education/guidance helps all learners to see the link between the skills they develop across the curriculum and how these are used in the world of work, and can open up new possibilities for learning (Education Scotland, 2015). Guidance is very important in an educational context because promoting career exploration is also a way of promoting learner engagement in school. This, in turn, is linked with academic success and early dropout prevention, which is especially significant for more vulnerable learners. Moreover, information, problem-solving and analytical skills are needed to assess opportunities for further learning and working. As highlighted by some experts, people with disabilities, e.g. Attention Deficit / Hyperactive Disorder, are less likely to make plans and take
decision upon their future. Vocational assessment should be an important element before TVET and before the transition process, including transition to work. In a rapidly changing global labour market, where traditional careers are disappearing and new opportunities are emerging, information and guidance play a significant role in helping the more vulnerable prepare to face transitions.

Inclusive TVET programmes must be related to the changing needs of the labour market and provide people with disabilities with the knowledge, skills and attitudes required to make successful transitions, according to personal and occupational aspirations.

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

For TVET to be genuinely transformative, as stressed by deliberations in Shanghai, it must combine employability and productivity, equity and inclusion, and sustainability and well-being (UNESCO, 2015d).

**There are three analytical lenses for transforming TVET:**

During the discussion there was a bigger focus on social equity but, as represented by the interlocked lenses in the figure, there are zones of complementarity and interdependence, so the other aspects were also sometimes pointed out.

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.

*Source: Marope et al. (2015), Unleashing the Potential: Transforming TVET. Paris: UNESCO.*

*Figure describing the forces transforming TVET:*

- *Sustainability* (green economies, intergenerational rights, global citizenship).
- *Economic growth:* productivity, employability, employment, new modes of work.
- *Social equity:* redistribution, inclusion.
Participants highlighted certain aspects that are or could be essential for transforming inclusive TVET:

- **Increasing participation**

In order to transform TVET to support the needs of all young people and adults, people with disabilities must be involved in all policy decisions regarding inclusive measures, for example being included on funding boards for projects. The role of grassroots NGOs/initiatives tackling social problems in communities with few resources, many promoted by people with disabilities or their families, was also highlighted. From a sustainability point of view, it was argued that financial support, especially to developing countries, should be given directly to these NGOs.

- **Quality**

Quality in TVET is not only essential for continuously improving the system but also for increasing its attractiveness. Communities of practice like EQAVET – European Quality Assurance in Vocational Education and Training – reinforce the development and improvement of quality assurance in TVET.

- **Monitoring inclusive TVET progress**

Monitoring the implementation and evaluating the outcome 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 relevant data that is focused on people with disabilities. They already exist in some countries and can be used for individual self-evaluation. Examples were presented such as the Education Scotland book “How good is our school?”, and how through using ICT platforms this data can be easily transferred for school or country monitoring and self-review. It was also stressed that different types of disabilities could require different indicators.

- **Funding/Resources**

Inclusive TVET usually requires extra resources for supportive activities and/or for adapted infrastructure/tools. Nowadays, with government resources under greater stress, focus on efficiency and cost reduction is crucial. Funding is more and more connected with results, and that implies measuring impact. Another important issue that is on the table, in many countries, is how to address the funding and whether it goes directly to government/big organisations or instead to grassroots NGOs/directly to people with disabilities. It is clear that funds must be directed in order to produce the greatest impact; and inclusive TVET is very much related to empowering people to make choices, so their voices must be heard on the subject.
Conclusions

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

From this online discussion it is clear that all over the world inclusive TVET attracts passionate and dedicated persons. Given all the different backgrounds from the five continents, it was interest to discover the similarities and consistency of viewpoints on inclusive TVET.

Seven conclusions emerge:

1. Quality and relevance of TVET should be enhanced through inclusive TVET programmes that focus on transversal skills, e.g. problem-solving, that help all learners to deal with today’s multiple life transitions.

2. People with disabilities must be involved as key stakeholders in all decision-making processes, as regards TVET.

3. Around the world, especially in developing countries, awareness of people with disabilities potential is still very low. Media campaigns and the demonstration of successful inclusive TVET can show that it’s possible to empower everyone, for example by keeping the focus on on people’s abilities and talents rather than on their disabilities.

4. Data on people with disabilities is missing or is incomplete, making them “invisible” in the TVET system. There is often no specific data on TVET for people with disabilities or the criteria for gathering the information isn’t standardised.

5. Learner-centred approaches are crucial in inclusive TVET, and all educational and support staff must be trained to ensure these approaches.

6. Partnerships should be strengthened and developed to improve the quality of inclusive TVET and to support people with disabilities to face life transitions.

7. ICT accessibility is a major concern for people with disabilities because it can either support or block their access to education and work, with great impact on their life autonomy. It is crucial to define universal standards for ICT accessibility, which must be present in every newly released equipment or software.
Taking into account of the discussion relevant actions could be taken by the following actors:

**UNESCO and other international agencies**
- continue to support and research, with other key partners, on universal ICT accessibility standards
- promote the discussion on the best global indicators to give visibility to people with disabilities in TVET
- reinforce online communities for globally sharing knowledge on inclusive TVET, with researchers and practitioners together, providing the opportunity for benchmarking and for faster progress on good inclusive practices

**Policymakers/Governments**
- adopt legislation that promotes people with disabilities access to inclusive TVET and transition to the labour market
- promote awareness campaigns in the media to increase social equity and inclusion, taking into consideration the potential of TVET
- provide legislation reinforcing the empowerment of people with disabilities, allowing them an active role in the decision-making processes, including funding distribution
- adopt legislation providing flexible curricula that can be adjusted to learners’ diversity

**Employer organisations**
- provide practices and jobs for people with disabilities, in partnership with TVET, and recognise the added value of workers with diverse abilities
- cooperate with policymakers, TVET providers, people with disabilities and other stakeholders to find the best strategies to remove all obstacles to full employment

**TVET providers**
- invest in inclusive TVET research in partnership with universities and other stakeholders
- have qualified staff and provide them with further training opportunities to ensure quality TVET education
- collaborate with other TVET providers/institutions and research bodies to develop, with universal design principles, pedagogical materials, tools and infrastructures to improve all learners’ ability to succeed.

“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)
About the moderator

Since 2004, Edgar Pereira has been TVET Coordinator at the Cooperative for the Education and Rehabilitation of Special Needs Citizens of Cascais, Portugal (CERCICA). Involved in many international TVET projects since 1998, he is also an expert of the European Network on Inclusive Education & Disability (incluD-ed) and consultant for Lifelong Guidance and Special Needs Education at the Portuguese Ministry of Education and Science.

Lead contributors to the launch of the online discussion and conclusions

Besides Edgar Pereira, lead contributors to the initial reflection and conclusions or the online discussion include:

- Florence Migeon, UNESCO Education Sector
- Keith Holmes, UNESCO Education Sector
- Carla Bonino, Fundación ONCE as incluD-ed leading organization
- Martine Aitken, incluD-ed Technical Secretariat operated by P.A.U. Education
- Annett Räbel, incluD-ed Technical Secretariat operated by P.A.U. Education

Participants

Overview

- Number of direct participants: 30
- Number of countries from which participants came: 21
- Number of comments posted: 102

Regional distribution of participants:
## List of participants

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Background resources and references


http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1569&context=gladnetcollect


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