The pathways to recognition. A contribution to the Sustainable Development Goals (SDG) from a Lifelong Learning Perspective

Recognition of Skills and Qualifications in a sustainable development context: trends and new perspectives

Borhene Chakroun
Section Chief, Youth, Literacy and Skills Development
Division for Policies and Lifelong Learning Systems
Education Sector, UNESCO
1. Qualifications agenda in the context of the SDGs and Education 2030

2. Shifts in qualifications and learning pathways

3. Labour market changes affecting qualifications

4. Leveraging digital technologies for recognition of skills and qualifications

5. UNESCO’s work in the field of recognition of skills and qualifications
Qualifications in the context of the SDGs and Education 2030
SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
SDG 4 : Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

By 2030, SDG 4 calls on Member States to:

- Ensure **equal access** to affordable and **quality** TVET programmes (target 4.3)
- Substantially increase the number of youth and adults with **relevant** skills for employment, decent jobs and entrepreneurship (4.4)
- Eliminate gender disparities in education (4.5)
- Ensure that all learners acquire the knowledge and skills needed to promote **sustainable development** (4.7)
SDG targets related to Qualifications

SDG 8: Promote inclusive and sustainable economic growth, employment and decent work for all

SDG 8 calls on Member States to:

• By 2030, 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 (target 8.5)

• By 2020, substantially reduce the proportion of **youth not in employment, education or training** (8.6)
Qualifications: Sustainable Development Device

- Qualifications of Water management workforce
- Qualifications of Health workforce
- Qualifications for Green economies
- Qualifications for culture and intangible heritage
1. Gather and use evidence about changing skills demand to guide skills development.

2. Engage social partners in designing and delivering education and training programmes that are evidence-based and holistic.

3. Ensure transparent and efficient TVET quality assurance systems and develop qualifications frameworks.

4. Promote collaboration on enhancing transparency and cross-border recognition of TVET qualifications.

5. Promote flexible learning pathways in both formal and non-formal settings;

6. Enable learners to accumulate and transfer credits for levels of achievement;

7. Recognise, validate and accredit prior learning; and

8. Establish appropriate bridging programmes and career guidance and counselling services.
Learning outcomes: Cross-cutting theme

• Shift from access to learning outcomes at all levels from ECCE to HE

• Tool for measuring performance of education and training system

• Driver for lifelong learning and recognising formal, non-formal and informal learning

• Comparable data on learning outcomes (Learning Assessment Capacity Index) provides a snapshot of countries' readiness to produce the data needed to improve learning outcomes and monitor progress towards the Sustainable Development Goal on Education.
Impacts of SDGs: Changing role of NQF: Three analytical lenses

Source: Adapted from Marope, M., Chakroun, B. & Holmes, K (2015)
SHIFTS IN QUALIFICATIONS AND LEARNING PATHWAYS IN THE CONTEXT OF EDUCATION 2030
Six major challenges and trends

I. Qualifications lifecycle

II. Qualifications comparability

III. Growing importance of skills as proxy

IV. Attractiveness of vocational qualifications

V. Impact of digitization of on qualifications

VI. Qualifications in the context of the right to education and right to lifelong learning
Comparative analysis of qualifications (26 countries): Qualifications lifecycle

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Number of Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-1999</td>
<td>1</td>
</tr>
<tr>
<td>2000-2004</td>
<td>4</td>
</tr>
<tr>
<td>2005-2009</td>
<td>14</td>
</tr>
<tr>
<td>2010-2014</td>
<td>35</td>
</tr>
<tr>
<td>2015-2016</td>
<td>25</td>
</tr>
<tr>
<td>Not yet registered</td>
<td>1</td>
</tr>
</tbody>
</table>

Number of documents over time.
Same qualifications from different countries can differ quite considerably with regard the scope of the learning outcomes

Source: J. Bjornavold & B. Chakroun, 2017
ICT Technician – main similarities and differences; occupational skills and competences

**Present in all countries**
- Maintain ICT system
- Perform ICT trouble shooting
- ICT network cable limitation
- Administer ICT systems
- Perform backups
- Repair ICT systems
- Use repair manuals
- ICT communications protocols

**Missing in more than 6-8 cases**
- Procurement of ICT network equipment
- Define firewall rules
- ICT encryption
- Computer programming
- ICT system programming
- Service oriented modelling
- Manage ICT system legacy implications
- Operate private branch exchange

Source: J.Bjornavold & B.Chakroun, 2017
Landscape of Skills Sets
Case 1:
According to a recent report from Georgetown’s Center on Education and the Workforce, liberal arts graduates have an average unemployment rate (9.7%) that is 2.7% higher than the average rate for all graduates (7%).

According to Burning Glass by coupling liberal arts education with additional set of skills (Data analysis, graphic design, etc.), individuals can nearly double the jobs available to graduates, while also offering an average salary premium of $6,000.

Case 2:
Analysis of the job markets in Denmark, France, Germany, Slovakia, South Africa, Spain, and Switzerland reveals that a one standard deviation increase in complex problem-solving skills is associated with a 10–20 percent higher wage.
Case 3: Literacy proficiency by level of educational qualification (25-65 year olds)

Less than upper secondary
Upper secondary
Tertiary

Source: OECD, 2016
Students’ career expectations

Percentage of students who expect to work in science-related professional and technical occupations when they are 30
Share of all students in upper secondary education enrolled in vocational programmes (%)

Source: UIS
Labour market changes affecting qualifications
Polarisation of Labour Market and Risks of Automation
The labour market is becoming polarized in high income countries...

Annual average change in employment share, 1995-2012 (% points)

Greece  France  Spain  Austria  Poland  Sweden  Rep. of Korea  Switzerland  Ireland  Norway  Finland  Denmark  Germany  Croatia  Canada  Italy  Australia  Netherlands  Portugal  United States  Hungary  Czech Rep.  Slovak Rep.

- High-skilled jobs
- Middle-skilled job
- Low-skilled jobs
... and in low and middle income countries

Annual average change in employment share, 1995-2012 (% points)

- High-skilled jobs
- Middle-skilled jobs
- Low-skilled jobs

Countries: FYROM, Panama, Guatemala, Turkey, Philippines, South Africa, Malaysia, Honduras, Mauritius, Tanzania, Ukraine, Serbia, Bolivia, El Salvador, Thailand, India, Sri Lanka, Egypt, Costa Rica, Kazakhstan, Namibia, Mongolia, Ghana, Pakistan, Peru, Nicaragua, Argentina, Botswana, Ethiopia, China
Automation and AI will change the skills needed in the workforce

Total is for United States and 14 Western European countries

**SKILLS**

<table>
<thead>
<tr>
<th>Hours spent, in 2016 Billion</th>
<th>Physical and manual</th>
<th>Basic cognitive</th>
<th>Higher cognitive</th>
<th>Social and emotional</th>
<th>Technological</th>
</tr>
</thead>
<tbody>
<tr>
<td>203</td>
<td>115</td>
<td>140</td>
<td>119</td>
<td>73</td>
<td>55</td>
</tr>
</tbody>
</table>

**Change in hours spent by 2030 %**

- Physical and manual: -14%
- Basic cognitive: -15%
- Higher cognitive: 8%
- Social and emotional: 24%
- Technological: 55%

**Skills with the biggest shift in demand**

- General equipment operation and navigation
- Inspecting and monitoring
- Basic data input and processing
- Basic literacy, numeracy, and communication
- Creativity
- Complex information processing and interpretation
- Entrepreneurship and initiative taking
- Leadership and managing others
- Advanced IT skills and programming
- Basic digital skills

Source: McKinsey&Company, 2018
Implications for Lifelong Learning

Present Labour Markets

Future Labour Markets

High-Level Skills

Intermediate

Low-level skills

Career path

Limited career path
Right to lifelong learning

1. Learning (Australia, France, Singapore);

2. Recognition of prior learning (Brazil, Norway and France);

3. Career guidance and counselling (France & Denmark); and

4. Other rights: Right to information/internet, social security, privacy, etc. (EU social right, GDPR, etc.)
LEARNING PATHWAYS: ARTICULATION OF TVET WITH HIGHER EDUCATION
Findings

• Making NQFs work requires 4 fundamentals: proportionate legislation; sustained stakeholder bodies; specialised institutions; national quality assurance strategies.

• Most impact: move to outcomes in qualifications; transparency of systems of qualifications; Validation of non-formal learning; stakeholder engagement in qualifications.

• Less impact: visibility to learners and employers; pathways within national systems.
• **Pathway 1**: Entrants from initial TVET (ISCED 2–3). This transition is critical in removing the stigma of a dead-end from the vocational track.

• **Pathway 2**: Entrants from short-cycle post-secondary TVET (ISCED 4–5) to higher education (ISCED 6–8).

• **Pathway 3**: Entrants from working life, including the informal economy.
Learning pathways: Context matters

Appropriate measures will depend on country circumstances e.g.

- Level of education and training system fragmentation or complexity
- Education system performance
- Structure of labour market
Examples of specific measures:

- Support credit recognition
- Develop RPL systems
- Offer quality career guidance and counselling
Examples of specific measures:

- Embed general and transferable skills and knowledge into TVET programmes to support lifelong learning

- Provide optional bridging or access programmes to post-secondary education
Examples of specific measures:

- Widen participation in post-secondary education, including funding arrangements for TVET graduates
- Develop short-cycle post-secondary vocational programmes
- Meet the needs of adult students
Leveraging digital technologies for recognition of skills and qualifications
• Open learning, MOOCs and Open Degrees;

• Digital Badges;

• Digital repositories;

• Connecting learners records.
Technology can help addressing challenges

Learning outcomes and learners records

Qualifications Lifecycle

Career guidance and counselling
Some emerging themes

Verification
How to verify somebody’s achievements digitally?

Content
What’s in a digital credential and what does it look like?

Storage
How to store a learner’s qualifications for the long term?

Exchange
How to exchange credentials quickly, securely, and reliably?

Source: Andy Dowling, 2018
Some existing architectures

A. CENTRAL REPOSITORIES
B. EXCHANGE NETWORKS
C. HUB AND SPOKE
D. BADGING PLATFORMS
E. PUBLIC BLOCKCHAIN

Source: Andy Dowling, 2018
Global landscape: Real-time LM data
Lone Star College’s data-driven program review process
1. Competent personnel who have the latest labour-market information at their fingertips to steer learners

2. Qualifications that are coherent and easy to interpret
UNESCO’s Work
Normative instruments on TVET


Normative instruments on HE

- Regional Conventions
- Work on Global Convention

Normative instruments on Right to Education

- The Right to Education Recommendation

Guidelines

- UNESCO-OECD guidelines on quality assurance in HE
- UNESCO guidelines on quality assurance of certification
- UNESCO guidelines on qualifications frameworks
Global inventory of regional and national qualifications frameworks 2017

Volume I:
Thematic chapters

Digital Credentialing
Implications for the recognition of learning across borders
To translate any outcomes-based qualification, credential, entry requirements, job specification or framework level into an internationally recognised form of description which can be used in deciding on comparing qualifications or negotiating recognition or progression arrangements.
Thank you

Borhene Chakroun
Chief, Section of Youth, Literacy and Skills Development
UNESCO
b.chakroun@unesco.org