TVET, 21st Century skills and relevance for Learning Cities

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1. UNESCO’s Learning City Framework - UNESCO UIL
2. Learning in and for the Workplace, with particular reference to TVET and 21st Century Skills
3. Reflections on Relevance for Learning Cities
A learning city promotes lifelong learning for all

UNESCO defines a learning city as a city that

• effectively mobilizes its resources in every sector to promote inclusive learning from basic to higher education;
• revitalizes learning in families and communities;
• facilitates learning for and in the workplace;
• extends the use of modern learning technologies;
• enhances quality and excellence in learning; and
• fosters a culture of learning throughout life.

In doing so, it will enhance individual empowerment and social cohesion, economic and cultural prosperity, sustainable development.
The Key Features of Learning Cities

Wider benefits of building a learning city

Major building blocks of a learning city

Fundamental conditions for building a learning city

Sustainable development

Lifelong Learning for All is our city's future

Individual empowerment and social cohesion

Economic development and cultural prosperity

Inclusive learning in the education system

Re-valorised learning in families and communities

Effective learning for and in the workplace

Extended use of modern learning technologies

Enhanced quality and excellence in learning

A vibrant culture of learning throughout life

Strong political will and commitment

Governance and participation of all stakeholders

Mobilisation and utilisation of resources

http://wwwUIL.unesco.org/lifelong-learning/learning-cities
Decent work and entrepreneurship; within a healthy, green, inclusive and equitable learning city is now a central focus for action.

Source: UNESCO UIL, 2017
Learning Terms from UNESCO UIL 2015, 2017, Unlocking Potential of Urban Communities Vol I & II
Range of Activities and Places done in Partnership

Activities:
• Literacy and numeracy courses
• Learning exchange sharing skills and knowledge
• Online learning (MOOCs)/Social Media
• TVET training aligning with industry in local area
• Youth guarantee
• Enterprise Education
• Free Technical Assistance to Farmers, Fisherman
• Targeted skills training – women, young people, migrants
• Technology Training to Small Business
• Career Planning
• Learning festivals
• Professional development within companies
• Pathways to learning and employment
• International dialogues (PASCAL’s EcCoWell)

Places
• Parks
• Learning Organisations
• Museums
• Libraries
• Homes
• Technology Park
• Enterprise Learning Region
• Learning Lighthouses
• Learning Hubs
• Community Centres
• Vocational Colleges
• Higher Education/ Universities
• Training centres within business

Technical and Vocational Education and Training (TVET) – (Applied Learning)

• TVET at all levels has a critical role to play in sustainable development and greening of economies (Maclean et al, 2018, Pavlova, 2018)

• TVET as a way of providing learning cities with a model to “facilitate effective learning for an in the workplace” is under-researched (Pavlova, 2018)
Qatar National Research Fund Project

Improving and Enriching the Human Capital of Qatar through the Identification and Development of 21st Century Skills for Sustainability and Employability (2018-2021)
21st Century Skills
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<tbody>
<tr>
<td><strong>Ways of Thinking</strong></td>
<td><strong>Creativity &amp; innovation</strong></td>
<td><strong>Self-perception</strong></td>
<td><strong>Critical thinking</strong>, reasoning, analysis, interpretation, synthesis, problem solving, research skills &amp; practices</td>
<td><strong>Cognitive Competencies</strong></td>
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<td>2. Creativity &amp; imagination</td>
<td>2. Perseverance</td>
<td>2. Creativity, curiosity, imagination, innovation</td>
<td>2. ICT literacy</td>
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<td>5. Flexibility &amp; adaptability</td>
<td>5. Social competence (leadership &amp; social skills)</td>
<td>5. Leadership, teamwork, collaboration, cooperation,</td>
<td>5. Intellectual openness — flexibility, adaptability, artistic &amp; cultural appreciation, personal &amp; social responsibility...</td>
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<td>9. Civic literacy &amp; citizenship</td>
<td>9. Scientific literacy &amp; reasoning, the scientific method</td>
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<td><strong>Inter-Personal Competencies</strong></td>
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<td>10. Oral &amp; written communication skills</td>
<td>10. Environmental &amp; conservation literacy, ecosystems understanding</td>
<td>8. Teamwork &amp; collaboration, e.g., communication, teamwork, cooperation, interpersonal skills</td>
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<td>11. Social responsibility &amp; ethics</td>
<td>11. Health &amp; wellness literacy, including nutrition, diet, exercise, &amp; public health &amp; safety.</td>
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<td>9. Leadership</td>
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<td>12. Technology literacy</td>
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<td>10. Responsibility, self-presentation, social influence</td>
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Numerous frameworks, for example

**Ways of Thinking**
1. Creativity and innovation
2. Critical thinking, problem solving, decision making
3. Learning to learn, metacognition

**Ways of Working**
4. Communication
5. Collaboration (teamwork)

**Tools for Working**
6. Information literacy (includes research on sources, evidence, biases, etc.)
7. ICT literacy

**Living in the World**
8. Citizenship – local and global
9. Life and career
10. Personal and social responsibility – including cultural awareness and competence

Griffin, P. et al. (eds.) (2012) *Assessment and Teaching of 21st Century Skills,*
21st Century Skills

- Critical thinking
- Creativity
- Problem Solving
- Metacognition
- Motivation
- Self-efficacy
- Conscientiousness
- Grit/perseverance

Lamb, Doecke and Maire (2018)
## Proposed Qatar Framework

<table>
<thead>
<tr>
<th>Higher Order Thinking</th>
<th>Technological Generic Skills</th>
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<tbody>
<tr>
<td>1. Learning to learn.</td>
<td>9. Digital literacy</td>
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<td>2. Creativity and innovation</td>
<td>10. Mathematical and spatial reasoning</td>
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<td>3. Critical thinking, problem solving, decision making</td>
<td>11. Use of monitoring equipment and interpretation of data.</td>
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<td>12. Adapt to new technologies</td>
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<tr>
<th>Personal and Social Skills</th>
<th>Skills for Sustainability</th>
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<td>5. Conscientiousness and perseverance</td>
<td>14. Cultural awareness and competence</td>
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<tr>
<td>6. Communication</td>
<td>15. Perspective taking and fair-mindedness</td>
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<td>8. Leadership</td>
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Source: Fien & Guevara, 2018
Relevance for Learning Cities: Preparing for Drivers of Change, for example:

The Fourth Industrial Revolution

Increased requirement for minimum Science, Technology, Engineering and Mathematics (STEM)... and what our research project has labelled 21st Century Skills
Addressing big issues locally ......

• 617 million children and adolescents worldwide are not achieving minimum proficiency levels (MPL) in reading and mathematics (UNESCO UIS, 2017)
• 64 million unemployed youth worldwide (ILO, 2018)
• 145 million young workers living in poverty (ILO, 2018)......
“Lifelong learning is about work and life, success in work that benefits the community, and the future of our young people who will enter the labour market;” Delors, 2013
Challenge:

To find ways that TVET research into skills development (including 21st Century Skills) can contribute to a model for learning cities to facilitate effective learning for and in the workplace.
Acknowledgement

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Partners

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