Toolkit for helping cities learn

A quick guide to tools available in the PASCAL Learning Cities 2020 programme

John Tibbitt, University of Glasgow and Leone Wheeler
PASCAL International Observatory

Introduction – Measuring cities

There are numerous rankings and indexes intended to summarise the comparative performance of cities around the world. They vary widely in their purpose, thematic focus, scope, data sources and methods. As a consequence their results are not always consistent, and it is often not clear what actions cities need to take if they wish to improve their position.

In developing their policies, city leaders will need to know answers to key questions such as:

- How is my city performing? And what are the trends?
- Are we doing a good job in connecting learning with its application for innovation, and economic and social development?
- How do we compare with others? What could we do better to improve things?
- What will be the likely consequences if we continue as we are?
- How can we get government, business, educators and civic society to work together?

PASCAL International Observatory has launched an international research and development programme Learning Cities 2020 to help cities learn and address the issues they face, and to develop effective policy responses to those issues prioritised. The Learning Cities 2020 programme has several strands:

- Support for ' learning city start-ups' , that is, those cities and regions wishing to develop learning city approaches;
- Workshops on key aspects of learning city development;
- Learning city networks which allow cities to develop and share experience of successful practice; and
- Research projects to assist development and evaluate learning city initiatives.

PASCAL has issued a brochure outlining the options available within the learning cities 2020 programme for participating cities, and also a paper outlining the methods and scope of each of the modules within the programme (see learningcities2020.org). Some form of measurement of city performance and progress is essential to guide policy implementation. This paper augments the earlier papers by providing more detail on a selected set of measurement instruments that can be deployed within the modules. In so doing, the intention is to provide a convenient guide to the nature and utility of the instruments, and to avoid cities having to assess the relative merits of the plethora of tools which are potentially available.

Broadly, the available tools can be divided in four main types:

- Indexes and rankings based on secondary analysis of existing data – typically used to provide some idea of current performance and comparison with other cities;
- New data collection and surveys – typically used to explore present performance or knowledge and attributes of city stakeholders and populations;
- Qualitative instruments for benchmarking and auditing – typically used to assess strengths and weaknesses in present performance or processes; and
- Evaluation approaches – typically used to ascertain the efficiency and/or effectiveness of present or new initiatives.

It is evident that these tools serve different functions, and can be applied to different policy topics. The intention here is not to provide a considered assessment of all the available instruments: rather, in the discussion which follows, selected examples of tools are related to the modules in the learning cities 2020 brochure and the paper on supporting learning city start-ups, the first strand of the PASCAL programme. The tools selected are robust, relatively easy to apply, and above all, appropriate to the particular context in which they are described. PASCAL will be pleased to provide further guidance in their selection and application if required.

Tools for measuring and comparing current city performance using existing data

A basic requirement for developing actions as a learning city is to understand the city's starting point, its relative performance and trends over time. One way of approaching this is to examine key indicators such as those included in the various city indexes and rankings which are available. Examples are the recently published ISO Standard 37120 www.iso.org , the Global City Indicators Facility www.cityindicators.org , and the PWC Cities of Opportunity Index www.pwc.com/us/en/cities-of-opportunity . Typically these indexes contain 40 – 60 indicators, grouped into subsets each focused on a different aspect of city performance, and usually sourcing their indicators from OECD or ILO statistics.

Though apparently wide-ranging, these indexes typically contain only a few measures relating to skills and learning, and may be of limited use because of, inter alia, the definition and choice of cities included, the validity and reliability of the data on which they are based, and their relevance to the purpose here of guiding learning city development.

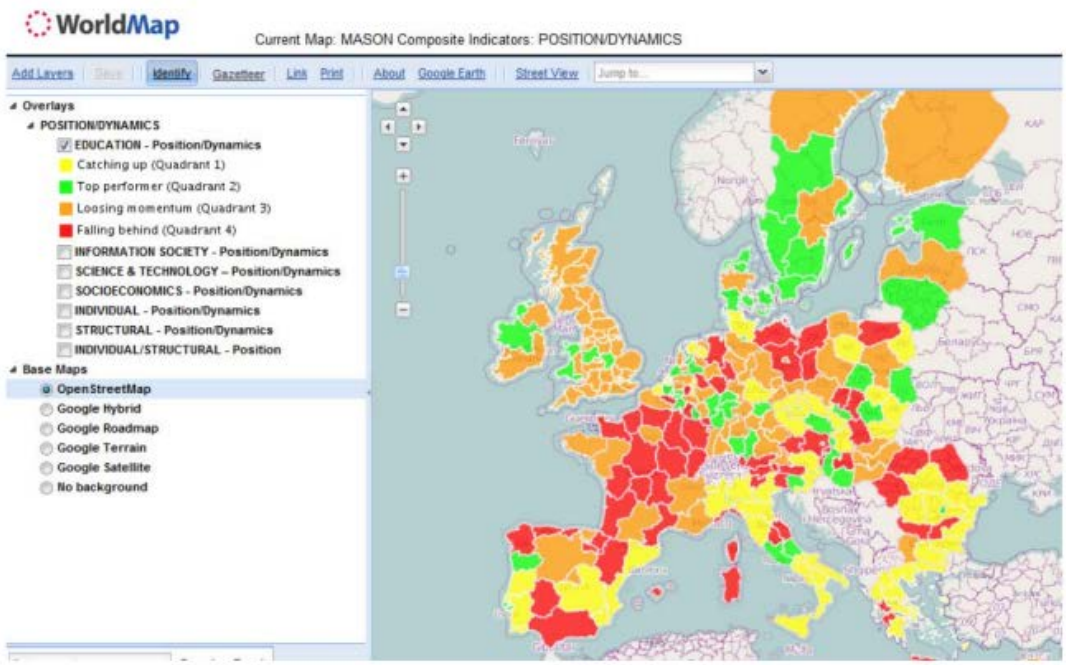
UNESCO is developing the Global Learning Cities Index to specifically focus on the essential aims and requirements of a learning city (Jin Yang 2012, UNESCO 2014). These are in the following areas:

- *The wider benefits of building a learning city* that covers individual empowerment and social cohesion; cultural and economic prosperity; and sustainable development;
- *Major building blocks of a learning city* that covers inclusive learning from basic to higher education; revitalised community learning; effective learning for and in the workplace; extended use of modern learning technologies; enhanced quality and excellence in learning; and a vibrant culture of learning throughout life.
- *Fundamental conditions for building a learning city* that covers vision, political will and commitment; governance and participation of all stakeholders; and mobilisation and utilisation of resources and potentials.

The preferred PASCAL tool in this category, for cities in Europe, is the interactive material developed by the MASON project, a project from the EU Lifelong Learning Programme 2007-13.

The MASON Project

Full details of the project can be found at http://mason.iacm.forth.gr



The project has developed a series of composite indicators of factors closely related to the successful delivery of lifelong learning strategies. These indicators are available at national and sub-national level across EU countries, making it possible to identify variations in performance at regional level throughout the EU. The indicators used provide measures of both current 'position' and also of 'dynamic' position, that is the direction of change over recent years (usually over 10 years but shorter for some indicators because of data availability). The indicators relate to 'individual' and 'structural' aspects of lifelong learning performance. The individual indicators relate to levels of education and participation in the information society; the structural indicators to socio-economic factors and aspects of science and technology.

The project then allocates regions of the EU to one of 4 quadrants in a model designed to provide a basis for policy action to boost performance, and provide for place-based action planning for lifelong learning. The quadrants are characterised as follows:

Quadrant 1: Coming up Individual aspect: + above average Structural aspect: - below average Policy focus: boost structural dynamic	Quadrant 2: Top performing Individual aspect: + above average Structural aspect: + above average Policy focus: maintain +ve dynamic on both
Quadrant 4: Falling behind Individual aspect: - below average Structural aspect: - below average Policy focus: develop +ve dynamic on both	Quadrant 3: Losing Momentum Individual aspect: - below average Structural aspect: + above average Policy focus: boost individual dynamic

Data is available at a number of levels.

Level	Population size	No. In Scotland	Description
NUTS1	3m and over	1	All Scotland
NUTS2	800k – 3m	4	Regions: E, NE, H&I,W
NUTS3	150k – 800k	21	LAs or groups of LAs

The composite indicators are developed as follows:

Individual	**Structural**
Education: 13 indicators Measures of: levels of qualification in population; participation in education and training; participation of 4 year olds in education; Proportion of pupils in primary & secondary ed.	**Socio-economic:** 4 indicators Measures of: Labour market – long-term unemployment and unemployment rate; Economy – GDP; Demography – Average annual population
Information society: 5 indicators Measures of: Broadband access Purchase of goods and services online; Never used computer Access and use of internet at home	**Science and Technology:** 5 indicators Measures of: Patent applications Research & Development expenditure People in research and development

Tools for measuring city performance using new data collection and surveys

It may be that suitable indexes or rankings are not available for a particular city or region, or there are particular information priorities which are not adequately covered in available indexes, in which case new data collection will be required. For the purposes of the learning cities programme, two areas which are likely to be of major interest are knowledge of local residents' participation and attainment in learning, and of the work-related skills and opportunities for skills utilisation within the city or region.

Survey of learners

PASCAL preferred tool for a learners' survey is drawn from Glasgow University's Big Data project.

This survey sets out to investigate the extent that values, attitudes, beliefs, skills and learning which influence behaviours and activity within the wider city area. Specifically the survey examines individual's patterns of travel activity and daily tasks, values and priorities. Data is collected on people's daily living, how they use their time and their mobility. It broadly measures individuals' and households' demographic backgrounds/ profiles, as well as attitudes, values, literacy/ knowledge and behaviours in 5 domains. The domains assessed are: sustainability, transport, education/ skills, time use/ activities and ICT/ technology. The survey is designed to be used across a representative sample of households with all adults present within the household participating.

The 5 domains explored in the survey are as follows.

Education/ Skills: The survey will collect data on people's education, learning and skills. This portion of the survey will assess learner engagement in past and present formal, non-formal and informal learning (in line with the Adult Education Survey, English Version, 2013). In addition, the survey will collect information on people's informal competencies, such as financial literacy and language skills. Barriers to participation and access to information will also be assessed, as well as attitudes toward the value of education/ learning and satisfaction with local education/ learning in general.

Environmental literacy & behavior: This portion of the questionnaire intends to assess sustainable attitudes, values, behaviors and literacy/ knowledge. Sub-sections include energy use, recycling and other sustainable behaviors, as well as general attitudes and values concerning the environment, global warming, pollution and humanitarian orientations. Finally, there are some questions assessing knowledge/ literacy concerning the environment and sustainable behaviors.

Transport: This section of the questionnaire taps into present transportation use and preferences, including cars, buses, subway, walking and cycling. It further taps into attitudes towards sustainable/ green transport, and barriers to undertaking cycling and walking. This will be supplemented by a travel diary for those individuals undertaking the life-logging portion of the project.

Time use/ activities: This section of the survey will attempt to assess individuals' activities in their daily lives. It will include engagement with cultural, civic and social activities as well as attitudes

towards public institutions and civic literacy. This will be supplemented by an 'activities' diary asking individuals about their activities for the previous 24 hours.

ICT use & Privacy: This section of the questionnaire assesses use of and access to technology, such as computers, internet and smart phones. In addition it assesses attitudes towards the value of technology, and privacy/ security issues online, as well as literacy with various types of software and computer programmes. Online learning and ICT training is assessed in the education/ skills portion of the questionnaire.

The survey also collects rich demographic information. Where-ever possible it draws items from other major well-established survey instruments. Please contact PASCAL for advice on developing applications of this survey.

Skills surveys

PASCAL preferred tool for local skills surveys is the instruments used in the OECD Programme for the International Assessment of Adult Competences (PIAAC) skills survey www.oecd.org/site/piaac/surveyofadultskills.htm .

Although developed in an international context, versions of the survey instruments are available for use locally. Pascal can advise on local application methods, and can negotiate arrangements for the use of the instruments with OECD.

Tools for identifying strengths and weaknesses in current city practice and performance

A well-developed learning city involves and mobilises a diverse range of stakeholders and resources in a holistic process to achieve its objectives. In developing such a strategy, at the outset it can be vital to 'map' or profile current activity and assess the strengths and weaknesses within current processes as a basis for defining priorities for improvement.

Benchmarking and audit tools are available which provide a framework for this kind of analysis.

PASCAL preferred tool for benchmarking

In its major study of universities' regional engagement in many different cities and regions around the world PASCAL developed a benchmarking instrument which can be readily adapted to focus on a range of priority issues, and which provides for a structured self-assessment of a wide range of factors and relationships central to learning city performance, supported by a limited amount of quantified data. The tool allows the creation of convenient profiles to readily identify strengths and weaknesses in policy, practice and performance.

The instrument consists of appraisal sheets for each aspect of performance or practice to be included. Each sheet has the following format:

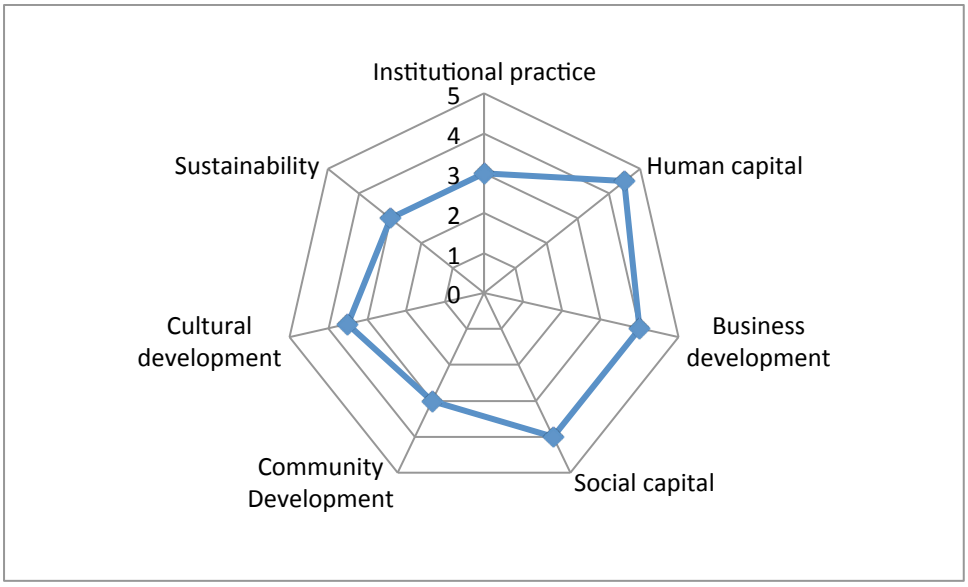
Domain: Number

Aspect: Number and title

Rating Scale	Activity	Relevant metrics	Remarks
	Indicates practice associated with each end point and the mid-point on the scale	Record relevant metrics to indicate level or volume of activity	Record any supporting comments to justify rating
1	Poor practice		
2			
3			
4			
5	Good practice		
	Best practice includes Indicates elements of best practice in this aspect of engagement	**Metrics may include:** Suggested data sources and metrics if available	

Agreed score	Comments
Record agreed rating for aspect	For any other comments, eg from regional stakeholders

The scores obtained from the tool can be displayed to provide simple profiles of performance on topics of interest, as in this example which looks at strengths and weaknesses in a university's engagement with its local region.



There are a variety of ways the tool can be used, ranging from self-assessment organised by the participating agencies alone to more extensive interview and assessment programmes using external assessors. More details are available from PASCAL.

PASCAL preferred tool for auditing

The LILARA project has provided a series of Learning Needs Audits for some of the key stakeholders in an aspiring learning city, namely city and regional government, universities, schools and SMEs. Each one has 3 components which explore respondent's ideas about what a learning city/region might be, how aspects of that definition might apply to the respondents' own city or region, and what respondents feel are priority aspects of further learning for them. The full instrument explores 12 domains, set out in the tale below:

Topics	Meaning	H	M	L
Basic knowledge, understanding and awareness Issues	Nature and characteristics of a Learning City. Why it is necessary. How it is different. Agents of change. Implications for me, for my family, for my fellow citizens. My role and responsibility. Constructing a Learning City. Examples of good practice.			
Organisational and planning issues	My area as a learning organisation. My role in strategy and policy development. Tools and techniques for improving performance. Continuous learning programmes. Quality management. Managing my learning. Developing leadership. Examples of good practice			
Wealth creation issues	Employment and employability. Attracting industry and inward investment. Workplaces as learning organisations. Skills and competences for the future. The Learning City as an investment. Role of the regional development agency. Linking cities globally. Learning festivals. Marketing the area as a Learning City. Entrepreneurial education. Case studies			
Social issues	Personal development tools and techniques. Learning incentives. Social inclusion. Developing Learning Communities and Learning Societies. Multiculturalism and diversity. Promoting tolerance and inter-ethnic communication. Work-life balance. Case studies of good practice			
Educational issues	Creating a culture of learning. Teaching and learning differences. New skills-based curricula for a learning age. Continuous professional development for all. Learner ownership. New learning methods. Learning styles. Mentoring schemes. Counselling. Improving access to learning. Removing barriers. Celebrating, rewarding and recognising learning success. Non-traditional students. Evaluation.			
Resource and financial issues	Investing in lifelong learning. Full service budgeting schemes. Service credit. Partnerships for increasing resource. Tapping into community human, financial and physical resources. Case studies of good practice			
Contribution and participation Issues	Personal contribution to building a learning area/community. Active citizenship. Volunteering. Corporate social			

	responsibility. Time-off social programmes. Mobilising the community. Case studies of good practice			
Political and democracy issues	Learning and local politics. Consulting the people. Educating civic leaders. Civic education for all. Local and global responsibilities. Learning City charters, participation and contribution. Learning Communities and Neighbourhoods. Communicating the learning message to all.			
Technology issues	Technology and the learning future. Smart cities. Wired Cities. Using the Internet and education technology tools for learning. Linking Learning Cities nationally and globally. Learning Region Networks. Distance learning and multimedia. Case studies of good practice			
Stakeholder issues	Institutions as stakeholders - roles and responsibilities of schools, universities, adult colleges, business and industry, voluntary and community organisations. People as stakeholders, individuals and families, councillors, myself. Using previous learning experiences. Case studies			
Cultural issues	Culture in the Learning City. Local history. Role of museums, libraries, galleries etc. Street culture. Case studies of good practice. Citizen involvement			
Environmental Issues	Citizen involvement, Sustainability. Eco-diversity, Eco-awareness, Area regeneration, Rural and Urban Planning, Climate change			

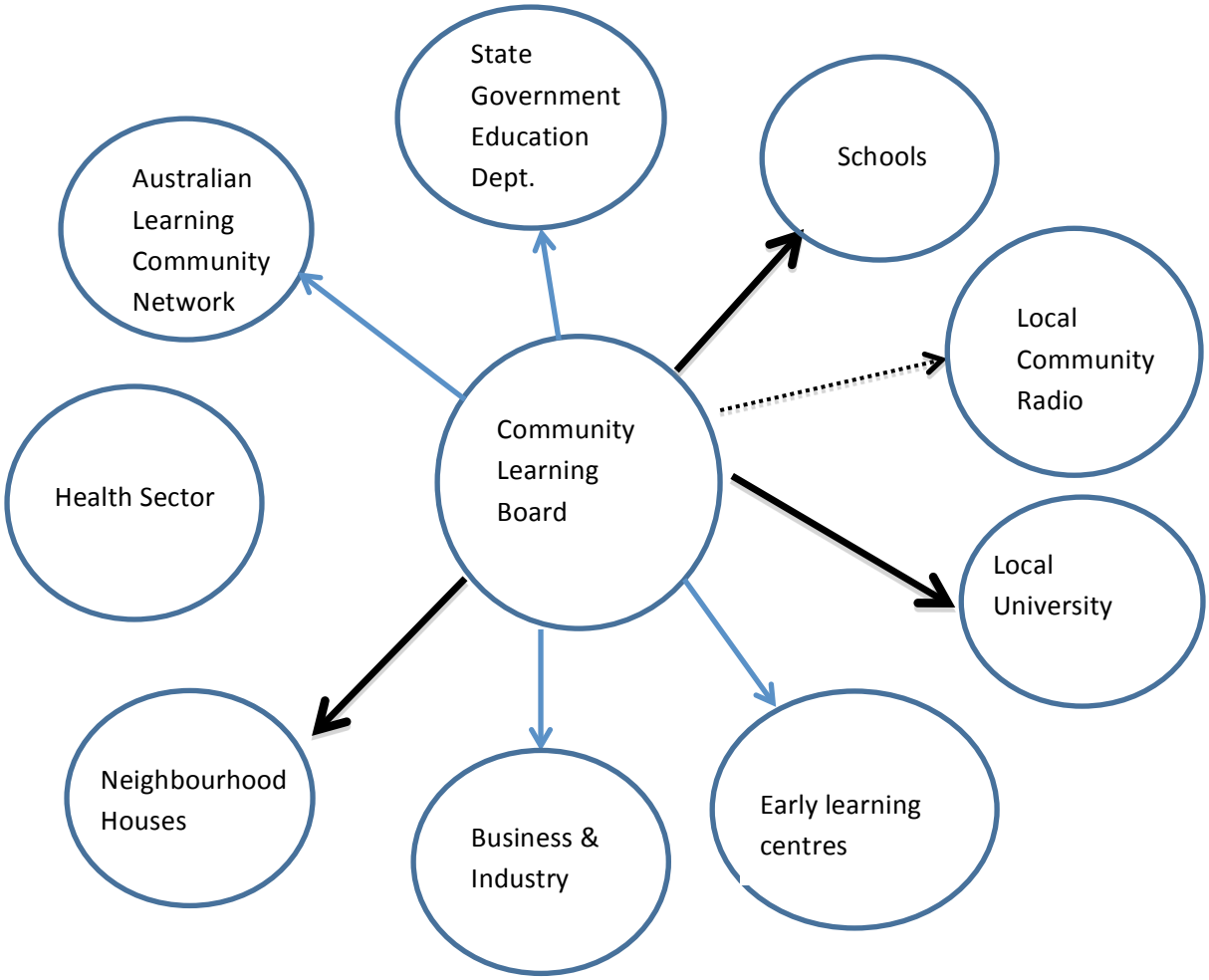
This is an extensive tool, which, if used in its entirety is a significant undertaking, but which will provide a substantial base on which to build further actions. It might be considered preferable in some cases to be selective about the domains covered, and again PASCAL can offer assistance if required.

Mapping stakeholder participation

It may well be useful in gaining an understanding of the extent to which relevant stakeholders are participating in learning city developments to use a collaboration chart to assess the strength of partnership. An illustration of such a tool is shown below:

Sample Relationship Diagram

Relationship	Line Strength	Numeric Value
No Relationship	No line	0
Communication	·····	1
Some Collaboration	———	2
Active Collaboration	———	3



The diagram above relates to an Australian example of a governance structure – the community learning board – and reviews the contribution of stakeholders to the board activities, but the instrument can be adapted to any particular context.

While the tool offers a subjective assessment, it is useful for showing strengths and weaknesses. It can also be repeated on an annual basis to show differences over time. For example, by using collaboration charts, the City of Melton, in Victoria Australia was able to determine from one review to the next, how many partners were involved in the Community Learning Board and the strength of their partnerships. They found that using these charts was also a good way of facilitating strategic conversation with their partners about the work.

It is possible to enhance the partnership analysis process. Learning city developments in Victoria, Australia, for example, have also borrowed from the health promotion field in order to assess the effectiveness of partnership projects. One common tool in use is the VicHealth Partnership Analysis Tool available at http://www.vicpcp.org.au/sites/default/files/VicHealth%20Partnerships%20Analysis%20Tool%202020 11.pdf.

PASCAL preferred tool for assessing partnership strength

Based on the foundation provided by the CLI (Cappon & Laughlin 2013) – see below - and the analytical quality framework which builds on the European Commission R3L+ program (Preisinger-Kleine 2013), the City of Melton has recently sought a more comprehensive measure of the impact of its Learning Community strategy. Known as the **Collective Impact Assessment Tool**, it aims to synthesise the measure of partnership strength with outcome strength. It also provides a visual representation of the overall impact of a particular partnership. It is based on good practice, fit for purpose, practical and measures consistently over time (Blunden, Wong et al 2014). For further information contact Melton City Council (Email Peter Blunden: peterrb@melton.vic.gov.au).

Tools for exploring participation in learning in the community

The Canadian Composite Learning Index (CLI) provides a convenient framework for exploring aspects of community learning. It comprises 17 indicators to address 4 themes, namely:

LEARNING TO KNOW	Involves the development of knowledge and skills that are needed to function in the world. These skills include literacy, numeracy and critical thinking.
LEARNING TO DO	Involves the acquisition of skills that are often linked to occupational success, such as computer training, managerial training and apprenticeships.
LEARNING TO LIVE TOGETHER	Involves the development of social skills and values such as respect and concern for others, social and inter-personal skills and an appreciation of the diversity of Canadians.
LEARNING TO BE	Involves activities that foster personal development (body, mind and spirit) and contribute to creativity, personal discovery and an appreciation of the inherent value provided by these pursuits.

Full details are available in a handbook at www.ccl.cca.ca .

Tools for evaluating initiatives taken

As initiatives are implemented, it is essential to assess both if the initiative itself is achieving the objectives and targets intended for it, and to understand its impact in the wider city or region-wide processes of developing a learning city. There is a huge literature about the wide range of evaluation methods which are available. The concern here is to highlight key aspects of approaches particularly suitable for the learning cities context.

Methods can vary from detailed case studies to more elaborate 'before and after' designs. Many examples will be found at www.eurolocal.info . Other examples are drawn from experience in the evaluation of learning community initiatives in Australia and elsewhere.

It is also useful to embed evaluation methods within a conceptual framework for anchoring existing knowledge and practice. One such example from Australia is the Victorian Performance Measurement Framework (VPMF), commonly known as the Measuring Impact Tool (MI). It was originally designed in 2004 specifically for the measurement of a state government funded Victorian Learning Towns program.

The framework adapts a program logic method and uses a tiered approach. It requires stakeholders to agree on what is to be evaluated at each of the following tier levels:

- Level One: Function of Learning Communities
- Level Two: Learning Delivery and Outcomes
- Level Three: Lifelong learning
- Level Four: Community Capacity

At Level One stakeholders might typically conduct a learning needs analysis, or a learning audit. An example at Level Two is the number and quality of lifelong learning opportunities available in a particular location. At Level Three practitioners identify how their particular programs contribute to lifelong learning in a community. Finally, at Level Four, stakeholders measure how program/s contribute to economic development or social inclusion goals.

The collection of data involves a mixed methods approach including personal interviews with key community informants, focus group interviews of key stakeholders and partnership mapping/collaboration charts. It requires some training in the use of the tool and the systematic collection of data through surveys, use of Likert scales, and consistent interview questions so changes could be observed over time.

Innovative methods include the use of selective small group conversations which involves detailed discussions with three or four informed people to explore the functions and outputs of learning city projects in greater depth. Also members can work on graphical collaboration charts with quantitative scores to map changes in relationships due to learning city activities. In addition, detailed interviews and small group discussions should occur to isolate the effects of learning city activities from other influences and to explore the cause and effect of relationships between activities and outcomes (Cavaye et al. 2013, p. 7). The latest copy of MI is available from the Department of Education and Early Childhood Development (DEECD), Victoria, Australia (ACFE, 2011). (Email Georgina Ryder: ryder.georgina.se@edumail.vic.gov.au).

The Australian Centre for Excellence in Local Government has also commissioned research on learning as a driver for change in communities. The series of publications includes the development of an Australian Learning Community Framework; literature review; learning city case studies; and a toolkit which incorporates a guide on developing a community learning plan which embeds an evaluation strategy that links to program goals and objectives. Practitioners find that the conceptual framework of a staged approach to learning city implementation and development is particularly helpful in assessing their own situation. There are also a series of questions that can be used for review at each stage of planning. The 2014 publication, *Learning as a Driver for Change: Learning Community Framework Measuring Impact Toolkit*, has been updated to incorporate the UNESCO Learning Cities Framework. Further information can be found at http://www.acelg.org.au/news/community-learning-and-local-government (Wheeler, Wong et al 2014, Wheeler & Wong 2014).

Selecting tools for the learning cities 2020 start-up programme options

Each of these tools is potentially relevant to the learning cities 2020 start-up programme, and can address particular questions and stages within it. The table which follows gives examples of how these tools might be deployed.

Focus	Tool
How is our city performing? What are the trends? International comparisons as a learning city	(Europe) Mason project ISO Standard 31720 UNESCO learning cities index
How are we connecting learning with innovation, economic, social and cultural development?	Benchmarking
How committed are city stakeholders to learning?	Audit Collaboration chart Collective Impact Assessment Tool
What is the skills profile of the city? Do we have the skills employers are seeking?	Skills survey
Communities' participation in learning?	Composite learning index
What progress are we making?	Evaluation programmes

PASCAL will be pleased to assist with the process of selecting and applying a suitable package of elements. For planning and developing a programme to support policy and practice development on any aspect of the learning city concept, please contact PASCAL International Observatory at the addresses below:

Professor Michael Osborne at Michael.Osborne@glasgow.ac.uk

or John Tibbitt at John.Tibbitt@glasgow.ac.uk .

Further reading and references

There are extensive materials for learning cities, including case studies and measurement tools at http://eurolocal.info

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