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LearningCITY Community Prototype

An investment from the Council Innovation Fund (CIF) in this prototype program would support lifelong learning, job-seeking, and program navigation for Calgarians hoping to possess the competency employers need.

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Project Proponents

Calgary Economic Development and Mount Royal University are proposing to partner on a community project in Calgary to test a model to support Calgarians with challenges in communicating and applying their competencies. This project is a part of the LearningCITY initiative.

The project will be conducted by CityXLab which is part of the Institute for Community Prosperity at Mount Royal University. Primary expenses will be student internships, project honourariums and software licenses. Project reports will be developed by CityXLab with support from Calgary Economic Development where appropriate. Other support from Calgary Economic Development may include facilitating additional stakeholders and partners, and receiving and disbursing funding. The project will be completed in the 2021 calendar year.

What is LearningCITY?

Lifelong-learning is increasingly acknowledged as a key enabler of personal and career adaptability. A community of lifelong-learners can contribute to a city's economic and social resiliency. LearningCITY is a community-based ecosystem anchored by a broad range of community partners (currently facilitated by Calgary Economic Development) that aims to re-envision how Calgarians learn throughout their lives and provide a support network to provide meaningful learning journeys for all citizens. Learning for most Calgarians is currently focused through traditional formal education systems that are not well integrated, leaving gaps and barriers for Calgarians trying to transition between systems or accessing learning from unconventional starting points. LearningCITY will be a ground-breaking ecosystem that enables Calgarians to access meaningful learning experiences and journeys at all points of their lives.

For Calgarians and organizations (e.g., businesses, non-profits, charities) to participate effectively and efficiently in the learning ecosystem, key enabling systems, processes, and tools need to be both developed and deployed. One of these foundational components that will enable the LearningCITY ecosystem to act as a cohesive community support network is a unifying 'language' to describe competencies that may be referred to differently across a variety of contexts such as professions, cultures, and educational settings. Helping different communities of competency users and providers communicate and connect more efficiently and effectively is foundational to closing the gaps between training and jobs and will enable diverse participants work towards common aims.

Work-to-date

In 2020, a group of leading researchers from 5 Canadian post-secondary institutions (PSIs) came together to produce 3 reports on Calgary's learning ecosystem as part of its "Calgary on the Precipice" series: "Learning our way Forward," "Path to LearningCITY 2025," and "Skills that Matter." The reports have the support of key anchors in our business community: Calgary Economic Development, the Business Council of Alberta, the Calgary Chamber of Commerce, and Canada West Foundation. Our group has also produced an op-ed in the Calgary Herald,

3 webinars, and 22 podcasts. This collective research and engagement yielded a competency model that outlines key domain-specific and enabling competencies that are ready to be tested in the field to improve learning experiences and outcomes in Calgary (i.e., job-seeking, work-integrated learning, program navigation, etc.).

A competency model can act as a compass to guide people on their learning journeys and empower them to explore their own paths. For LearningCITY, this compass is a unified Calgary competency model (CCM) that describes valuable competencies, levels of competence, and the criteria to observe and measure proficiency in these competencies. This CCM becomes the compass for not only individuals navigating the learning system, but also for employers and educators. The CCM provides a shared language and criteria across all sectors and organizations in the city to clearly communicate competency-related information about a specific role or learning experience.

For the Calgary Competency Model to be valuable, it must meet five criteria when fully developed and implemented:

1. It must guide the development goals of Calgarians, enabling more efficient labour transition.
2. It must be complementary to existing role or sector level competency models to maximize adoption.
3. It must be adaptable to enable it to be adopted across the diverse commercial, social, and public sectors.
4. It must be simple, to enable adoption by small and medium enterprises that make up over 90 per cent of the Calgary market.
5. It must provide support for diversity of learning pathways including all forms of education (formal and informal) and experience (professional, volunteer, and contextual) to guide effective scaffolding of competencies.

Benefits of the CCM include:

Employer	Learner	Educator
Aligning the supply and demand of priority competencies. Accelerating the acquisition and retention of talent. Accelerating retraining and upskilling.	Accelerating employment transitions. Providing guidance to focus both formal and informal learning. Providing guidance on experiential learning.	Aligning learning opportunities and outcomes to community priorities. Providing a framework to link informal learning to community.

Project description

A community-level project in northeast Calgary will allow us to test how the Calgary Competency Model can help Calgarians who have unique challenges communicating and applying their competencies. Working with a local community institution / organization, we will integrate a prototype of the CCM with an existing program currently offered to community members and monitor / evaluate whether outcomes are improved. Potential opportunities currently being considered include working with a local immigrant serving agency to improve a job search / placement program or helping enhance competency-development through a well-being program offered by a community recreation centre.

Lessons learned will have value in improving the competency model to ensure its applicability for all Calgarians while also offering insights for how community support organizations may improve their programs and impact. The collaboration to actively engage community members will also help build awareness of the LearningCITY initiative, catalyzing inclusive community participation in Calgary's emerging lifelong-learning ecosystem.

Desired outcomes from the project include:

Outcome	Potential Evaluation Metrics

Validating the ability of a common competency model or 'language' to improve experiences and outcomes (such as job-seeking and program navigating) for community members.	• Specific quantitative metrics will depend on programming context that prototype is integrated into. May include:
	  • # of competency from competency model tested
	  • Program-appropriate metric for efficiency of communicating about competency between stakeholders.
	  • Program-appropriate metric for efficacy of communicating about competency between stakeholders.
	• Qualitative metric about stakeholder understanding and confidence about competency

Providing input and feedback (from both learners and organizations) to inform the refinement of the competency model.	• # and nature of refinements / revisions to competency model • # and nature of refinements / revisions to partner programs

Enhancing our collective understanding of the in-community challenges and dynamics affecting our city's ability to support lifelong-learning and	• Impact on program-specific outcomes:
	  • # job placements
	  • "Stickiness" of job placements
	  • Changes in employment income
	  • Perceptions of well-being

communicate about competency.	• Satisfaction of participants / stakeholders
	• EDI performance:
	  • Demographic diversity of participants
	  • Ethnocultural diversity of participants
	  • Socio-economic diversity of participants
	  • Diversity of participating industries / businesses

Developing robust relationships to further grow the LearningCITY ecosystem.	• # of community participants • Partner / participant interest in contributing to other LearningCITY initiatives

While selecting northeast Calgary as the first location for our prototype will result in additional considerations to be made (e.g., language translation), we believe strongly that the close-knit relationships between businesses and community members and the presence of strong community partners make it an ideal choice.

The integration of the prototype competency model into programming currently offered to the community follows a capacity-building approach to collaborating with partner community organizations. This will allow partner community organizations to sustain and continuously build on lessons learned and impact from the project without necessarily requiring additional funding. LearningCITY will make the resulting research and insights from this prototyping project freely available to Calgary's learning ecosystem and other community partners across the city. LearningCITY will also continue to seek other opportunities for developing and testing ecosystem-serving infrastructure to support lifelong-learning of Calgarians.

Project objectives and timeline

Milestone	Objectives
Establish project governance (Feb 2021)	Establish steering committee and project team. • Define target research and learning outcomes for pilot. • Design activities and execution plan to deliver experiences.
Strategic partner engagement (March - April 2021)	Identify and engage strategic partner(s) able to: • Support outreach to recruit community participants. • Design and execute prototyping activities. • Collaborate in evaluation of program and outcomes. **Initial partner list includes Centre for Newcomers and Genesis Centre.*
Prototype design (March – April)	• Participatory design activities • Planning of experience delivery / execution • Interim reporting of prototype design process and outcomes
Delivery of pilot activities (May-August 2021)	• Participant outreach (approx. 200 job seekers and 10-20 employers) and engagement from target communities • Deliver in-community activities with target participants
Analysis & synthesis (August – September 2021)	• Review of data with research collaborators • Collaborative analysis and insight development • Presentation of prototype findings at a LearningCITY Summit, submission of academic publications, and development of community learning materials • Reporting of participant and stakeholder outcomes

Project budget

**As much as possible, we are ensuring any paid work is completed by Calgary post-secondary students. While CED is the applicant for this project and will provide financial management / governance support, the CityXLab (part of the Institute for Community Prosperity at Mount Royal University) will be the primary LearningCITY partner working with community collaborators to deliver prototyping activities.*

CIF funding is essential to anchor the project and leverage other funding (e.g., Mitacs, Brookfield Institute for Innovation + Entrepreneurship, etc.).

Activity	Description	Cost
Project management	FT internship for undergraduate student	$15,000
Project management software	Clickup Business Plan ($19 per month, per member)	$150
Communications	PT internship for undergraduate communications student (150 hours @ $21/hr.)	$3,150
Partner relationship management	PT internship for undergraduate student (400 hours @ $21/hr.)	$8,400
Competency model assessment	Vametric software (according to sample quote received)	$10,000
Job-candidate matching	PT internship for undergraduate human resources student (200 hours @ $21/hr.)	$4,200
Community partner honorariums	5 honorariums ($100 each)	$500
Administration & Governance	Financial management / reporting, strategic advising and oversight (~5% of subtotal)	$2,000
	Total Cost	$43,400

Alignment with criteria of fund

The CIF applies to projects that encourage innovation and support the goals of Council as set out in current Council Priorities. Below are a few examples of clear alignment:

- **imagineCalgary's economic system targets** related to economic well-being (e.g., supporting research), meaningful work (e.g., supporting full employment – particularly with immigrants and new graduates), and sufficient income (e.g., all Calgarians have access to appropriate training).
- **imagineCalgary's social system targets** related to lifelong learning (e.g., competency development and access to formal/informal learning opportunities).
- **2019-2022 Council Directives** related to building a prosperous city (e.g., growing as a magnet for Talent).
- **Our Community's Economic Strategy: Calgary in the New Economy** focuses on enhancing program access to diverse communities, expanding work-integrated learning, and increase collaboration between PSIs, community, and businesses.

We believe strongly in helping Council achieve the targets above and know that none of them are achievable without transforming Calgary into a city that learns its way forward. That is why LearningCITY was created in the first place. With your catalyst funding, the findings from this community prototype will be invaluable in determining what the gaps are (at a local level) between matching competency to jobs and what we can do to solve for them.

If you have any questions, please contact:

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Appendix A: The LearningCITY Competency model

A city's ability to attract, develop and retain talent (the people who will live and work there) is the greatest predictor of social, and economic prosperity.1 That means how cities grow and develop their talent pool is crucial. Adaptable people can adjust to the dynamic context of the world today. Adaptability can be reactive, like learning to live in a new reality during the COVID-19 pandemic. However, adaptability can also be proactive and intentional, characterized by anticipating change and planning a response in advance.

Learning as a Climbing Wall

In Spring, 2020, numerous LearningCITY community partners released two reports exploring the future of learning in Calgary. This research recommended Calgary, as a city, fundamentally rethink how it learns. This starts by recognizing that traditional learning systems, though essential, are only a small component of the city's rich, but fragmented learning system.

One of the reports' central themes was the critical importance of recognizing that learning today is inverted. Learning is no longer a top-down institutional model rooted in the industrial revolution. Rather, learning follows the innovation processes adopted by companies like Google and Apple, and is iterative, open, and prioritizes empowerment and autonomy of the individual.

This means that learning today looks more like a climbing wall than a ladder. The industrial revolution learning model is anchored in mass production, commoditization, and efficiency. In other words, its goal is to produce as many educated people as efficiently as possible.

In contrast, the climbing wall model prioritizes personal exploration, experimentation, enabling competencies and adaptivity. It includes diverse educational pathways, including all forms of learning (formal and informal) and experiences (professional, volunteer, and contextual). So, the future of a resilient and adaptive Calgary is about how Calgarians learn to step off the ladder and choose to design and navigate their own climbing wall.

What Really Matters?

The barrier to accelerating the adaptive capacity of Calgarians remains rooted in the legacy learning system. This is because traditionally, both the learning system and employers put priority on what are called ***domain-specific competencies (DSCs)***. DSCs are the competencies you need to complete a specific job, whether it be welding, policy analysis or engineering. DSCs may incorporate role specific competencies, for example, the competencies required to be an accountant. They may also include industry specific competencies, for example, the competencies required to be an accountant in the oil & gas sector. Historically, DSCs were highly valued by society as they were essential to generating short-term economic value. The challenge is DSCs are highly contextual and possess a shorter lifespan than ECs.[2] Today, the World Economic Forum reports professional competencies have a half life of under six years.[3] Just think, in the past a trade learned as a teenager could be developed and refined through a lifetime of experience. Today, DSCs often become dated and demand continual training to maintain relevance. The primacy of DSCs is visible in every postsecondary

institution which has entire schools, departments, diplomas, and degrees dedicated to developing specific domain-specific disciplines.

In contrast to DSCs, ***enabling competencies*** (ECs) (also known as soft, essential, or transferable skills) are foundational and enable an individual to succeed across a diverse range of personal and professional contexts. These include competencies such as analytical thinking, problem-solving, communications, and organizational competencies.[4] ECs provide the capacity for an individual to navigate and explore the climbing wall.

However, today's DSC centric learning model puts limited emphasis and no accountability on developing ECs. Whereas there are dedicated faculty accountable for developing DSCs related to accounting, nursing and computer science, there are no faculty dedicated to ensuring development of ECs. Rather, every educator is accountable for developing ECs. However, as the old adage goes, *when everyone is accountable, no one is accountable.* This lack of accountability demands a reinvention of learning.

Learning to Climb

It is important to recognize that the climbing wall model of learning does not devalue the role of DSCs. It recognizes that DSCs, ranging from software coding to nursing and welding, are essential for generating value. However, it also recognizes that the dominant coding languages, medical and welding technologies of today are dynamic and ever changing Therefore, it is possessing the optimal level of both ECs and DSCs that seamlessly work together, which provides an individual the capacity to adapt, as the world around them adapts.

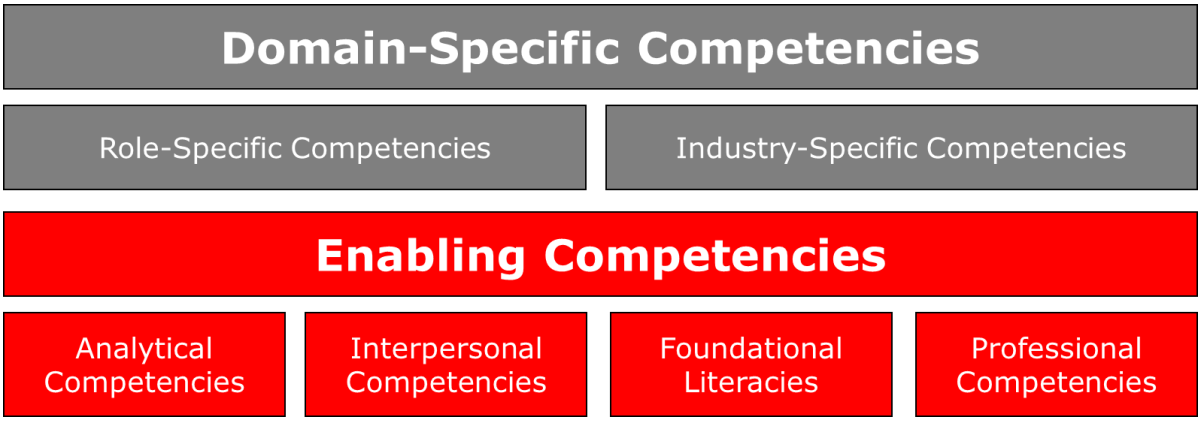

Figure-1: The Two-Level CCM

To deliver this adaptive capacity, the city's learning system must be designed to recognize and credential the diversity of pathways on the climbing wall, including all forms of education (formal and informal) and experience (professional, volunteer, and contextual) resources. This must include an effective scaffolding of these credentials, so that these act as building blocks, rather than isolated events. This change creates short-term targeted learning goals for individuals to map to.

Acknowledging learning today as a climbing wall, requires a new set of tools for learners to explore and navigate their own pathway. If today's ladder reflects a static map to a predefined destination, learners on the climbing wall must have a compass to provide them direction, while allowing them to explore their own path.

This compass is a unified ***Calgary competency model*** (CCM). A competency model describes the competencies, and levels of competence, required to complete a specific task and the criteria to observe and measure proficiency in these competencies.

The idea of a competency model is not new. They have existed in forms for decades. Competency models have proven to be effective for aligning and prioritizing the required competencies across individuals, employers, and educators. For example, competency models were introduced at different levels including organizations (e.g., UNESCO), roles (e.g., accounting) or regions (e.g., European Union; Singapore). Today, 140 countries have adopted competency models to provide a framework to prioritize learning.[5]

These models provide guidance for the classification of competencies and associated levels in specific roles.[6] Models support the creation of a common vocabulary.[7] In addition, they often include consistent classifications and measures to enable policymakers, employers, and individuals to assess the current state of human capital and guide the allocation of scarce development resources (e.g., education and training).[8]

In general, competency models include five components:[9]

> ***Task:*** the demand to complete a discrete activity in a role (e.g., managing staff).
>
> ***Competency:*** the skills and knowledge and attributes required to complete this task.
>
> ***Levels:*** The ability to evaluate the level of proficiency of a competency to complete the task (e.g., basic vs. advanced).
>
> ***Assessment:*** The process to evaluate proficiency.
>
> ***Governance:*** The competency model must be part of a broader recognized workforce development framework that prioritizes and legitimizes competencies.

The Calgary Competency Model

Similar to traditional learning systems, competency models are domain specific. For example, there are competency models for accountants, social workers, system engineers, human resource managers and salespeople. However, though social workers and system engineers appear to have little in common on the surface, the reality is quite different. While it is true the DSCs of these roles are vastly different, their underlying ECs are not. In fact, the analysis reported in *Calgary on the Precipice*, found 2/3rd of ECs were common across all 15 competency frameworks, including 76 per cent of interpersonal competencies; 67 per cent of analytical competencies; 63 per cent of foundational literacies; and 52 per cent of professional competencies.[10]

This result identifies the opportunity for developing a two-level CCM that transcends all commercial, social, and public sectors Figure-1). The first level is composed of four clusters of ECs, including *analytical* competencies, *interpersonal* competencies, *foundational* literacies,

and *professional* competencies. Refer to Figure-2 and Appendix 1). The second level is composed of DSCs that will be specific to a role or organization.

This CCM becomes the compass for not only individuals navigating the learning system, but also for employers and educators. Moreover, this model will frame the priority learning outcomes for the learning system. The benefit of a CCM with common ECs is shared language and criteria across all sectors and organizations in the city. From an employer's perspective, a CCM provides them the ability to clearly communicate the competency required in a specific role. This in turn, provides existing or future employees the ability to focus on developing these competencies. Lastly, it provides the ability for both formal and informal educators to clearly articulate the competencies their programs or initiatives will develop.

Table-1: Benefits of the CCM

Employer	Learner	Educator
Aligning the supply and demand of priority competencies. Accelerating the acquisition and retention of talent. Accelerating retraining and upskilling.	Accelerating employment transitions. Providing guidance to focus both formal and informal learning. Providing guidance on experiential learning.	Aligning learning opportunities and outcomes to community priorities. Providing a framework to link informal learning to community.

Figure-2: Four Cluster EC Model

[1] Refer to Calgary on the Precipice: Learning our Way Forward available at LearningCITY.ca.

[2] Gawad, N., Allen, M., & Fowler, A. (2019). Decay of Competence with Extended Research Absences During Residency Training: A Scoping Review. *Cureus*, *11*(10). Accessed on March 1, 2020 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6874279/pdf/cureus-0011-00000005971.pdf

Zhang, X., Ryan, S. D., Prybutok, V. R., & Kappelman, L. (2012). Perceived obsolescence, organizational embeddedness, and turnover of its workers: an empirical study. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, *43*(4), 12-32.

[3] Yuen, P. (2018, September). The 7 forces that will change the way you work. *World Economic Forum*. Retrieved from https://www.weforum.org/agenda/2018/09/here-are-seven-ways-your-job-will-change-in-the-future/

[4] Conference Board of Canada. (2019) Building Skills Connections Series: Skills for a Prosperous Alberta Retrieved from https://www.conferenceboard.ca/focus-areas/education-skills/building-skills-connections-series?AspxAutoDetectCookieSupport=1

[5] Lane, J., & Griffith, J. (2017). A case for a pan-Canadian competency framework. *Canada West Foundation*. Retrieved from https://cwf.ca/research/publications/matchup-a-case-for-pan-canadian-competency-frameworks/

[6] Lane, J., & Griffith, J. (2017).

[7] Braham, E. & Tobin, S. (2020). Solving the skills puzzle: The missing piece is good information. *Diversity Institute*. Retrieved from https://ppforum.ca/publications/solving-the-skills-puzzle/

[8] Rothwell, W. J. (2002). *The workplace learner: How to align training initiatives with individual learning competencies*. Amazon Books.

[9] For an overview of competency models refer to Lane, J., & Griffith, J. (2017).

[10] This is the percentage that the specific competencies in a cluster were included in the 15 competency models.