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Integrating systems design and behavioral science to address a public sector challenge from within

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Integrating Systems Design and Behavioral Science to Address a Public Sector Challenge from Within

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Email us to join our listserv or GCConnex community
#ESDCinnovationlab
Employment and Social Development Canada (ESDC) provides most of the direct services to Canadians on behalf of the Government of Canada. This includes pensions, employment insurance, disability supports, and student loans, for example.

The ESDC Innovation Lab brings a human-centred tool kit to the challenges faced by our Department, bringing the lived experience of Canadians into the development and improvement of policies, programs and services in order to respond to the changing needs of Canadians.
The Canada Learning Bond

- The Canada Learning Bond is an income-tested Government of Canada program available for eligible children from low- and modest-income families* to put toward education expenses.

- It provides an initial payment of $500 into a Registered Education Savings Plan (RESP) plus an additional $100 for each year of eligibility to a maximum of $2,000.

- Personal contributions into an RESP are possible, and are incentivized by the Government of Canada, but are not required to receive the Canada Learning Bond.

* For children born in 2004 or later
The Unlikely Birth of a Systemic Design Project

- An experiment that tested 7 variations of the letter including various interventions (e.g., an infographic insert, or a message on the envelope)

- The letters were sent to over 50,000 parents and their impact on uptake was measured after 7 months.

- Letters resulted in a statistically-significant but modest increase in program take-up:

  - No letter: 5% uptake
  - Standard letter: Additional 4% uptake
  - Standard letter + interventions: No additional increase in uptake. Some letters had a negative impact.
The Design Challenge

• To increase uptake of the Canada Learning Bond

• To better understand perceptions of education and financial decision making among low income families to improve ESDC programs
What We Did: A Systemic Approach

OUTPUT: LEVERAGE POINTS
- Systems Map

OUTPUT: INSIGHTS
- 9 in total

OUTPUT: LEVERAGE POINTS
- Anecdote circles
- Semi-structured interviews
- Observations
- Gamification

OUTPUT: WEAK/STRONG ANALYSIS
- Assumptions

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- Assumptions

OUTPUT: IDENTIFICATION & NEED
- Qualitative Research
- Design Thinking

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IDEAS

DESIGN SPECIFICATIONS
- Awareness
- Ease of access
- Financial security

ASSUMPTIONS MAPPING
- Theory of Change
- Evidence safari

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BEHAVIOURAL SCIENCE LETTER TRIAL

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Theory of Change: Understanding the How and Why

Building upon the program logic model*, this approach unpacks links between activities, outcomes, and contexts of the program, as well as the existing evidence base for each assumption embedded in the program logic.

* Canada Education Savings Program Final Performance Information Profile, September 2017.
Theory of Change: Mapping Assumptions

- **Activity**
  - CESP offers communication products to Canadians (direct outreach to families)
  - CESP provides support to RESP promoters

- **Assumptions**
  - Increased awareness of the CLB among families
  - Families willing and able to open RESPs for their children

- **Outputs**
  - Families will benefit from matched payments
  - Families benefit from CLB payments

- **Outcome**
  - Increased savings for post-secondary education
  - Increased aspirations/college-bound identity
  - Equitable post-secondary education access and participation for children
  - Increased post-secondary education completion for children
  - Children have the skills and information they need to participate in the labour market.
Systems Mapping: Understanding Behaviour Using Motivation, Capability, and Opportunity*

Educational Attainment Systems Map

OUTPUT: LEVERAGE POINTS

Deep Structure
Individual System - Child
Individual System - Family
Institutional System
The Community
Exploring the Depths of the Challenge

**Awareness**
“How come I didn’t know about this?”

**Ease of Access**
“It’s just not convenient.”
“I don’t have a car; I can’t get into town to the bank.”

**Points of Vulnerability**
“I lost all my money.”

**Savings Incentives Are Not for Everyone**
“I am focused on surviving.”

**The Life-Course Challenges of Vulnerable Canadians Are Interrelated**
“So many shortfalls in life that it makes it hard to even think about what their [my kids] future will hold.”

**Ideas**
- Educational package – rights, responsibilities, and benefits
- Tailored messaging
- Communicating complexity
- RESP gift cards
- Chatbot/ AI Social Buddy

- ID support
- Sign up bonus
- Informed decision-making and financial security
- Credits for youth service
- Post sign-up relationship
- Child Future Savings Boost
- Living insurance
- Non-financial community supports
Continuous Testing and Experimentation

- For example, a new experiment tested 5 variations of the letter based on research findings.

- The letters were sent to parents of the oldest cohort of CLB-eligible children and their impact on uptake was measured after 6 months.

<table>
<thead>
<tr>
<th>Variation</th>
<th>Uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>No letter</td>
<td>2.2%</td>
</tr>
<tr>
<td>Standard letter</td>
<td>5.7%</td>
</tr>
<tr>
<td>Standard letter + exact dollar amount</td>
<td>8.0%</td>
</tr>
<tr>
<td>Standard letter + exact dollar amount− savings</td>
<td>8.8%</td>
</tr>
</tbody>
</table>

3,398 more children receiving the CLB (compared to the standard letter)
4,580 more children receiving the CLB (compared to the standard letter)
Three Key Take-Aways

1. The agile use of mixed methods to help address complex policy challenges.

2. Integrating theory of change and systems design for a deeper understanding of the problem.

3. Engaging with the lived experience of Canadians provides a breadth of learning that can help advance holistic approaches.
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#ESDCInnovationLab How can you reach us?

Our Tools and Methods are available on the Lab’s GCconnex: email us for an invitation to the group
Annex A: What we did: Fieldwork by the numbers

March 2017 – April 2018

• The team travelled to Winnipeg, Toronto, Ottawa, PEI (9 communities), and Sandy Bay and Abeqweit First Nations communities, with 146 people engaged.

• 27 Interviews and 5 workshops with low income Canadians.

• 11 key informant interviews, including RESP providers.

• 5 Observations of service interactions.

• 10 workshops held with stakeholders across the country, bringing together government (including CESP participants), RESP providers, and community-based organizations.
Annex A: What We Did: People and Perspectives

Employment and Social Development Canada: Office of Disability Issues, Learning Branch

Other federal government departments – Canada Revenue Agency, Aboriginal and Northern Affairs Canada, Privy Council Office

Community organizations – social workers, financial literacy trainers

Financial institutions – banks, credit unions, scholarship fund provider

Educational institutions – teachers, researchers, university staff

Low income families – parents, children, youth

Provincial governments
Annex B: What We Heard: Insights

Awareness is an issue. Many of the families that we spoke with were not aware of the CLB, but when they heard about it, they wanted it.

Promoting the CLB requires a community-wide effort. We spoke to a wide range of community organizations that see a need to support parents in their journey. They tend to promote the CLB as a benefit.

It’s complicated: the messaging, choices, and process can be overwhelming. As people navigated through the journey to get the CLB, they encountered different layers of complexity.

Parents need to feel safe when investing for their children. As the CLB could be tied to an investment vehicle, some families could encounter different forms of risk along the way. Also, as new initiatives are considered, the unique needs of low income families need to be taken into consideration.

Aspiration isn’t enough. The systemic barriers to education are too hard for some families to overcome alone.
Annex C: What We Heard: Insights

People aren’t finding their path.
Some parents are not finding their career path in life. This is resulting in lost potential for themselves and Canadian society.

The needs of the present compete with the needs of the future.
Some low income families are in survival mode, struggling to survive their present circumstances. With that, it is incredibly difficult (mentally and physically) for them to plan for the future.

For some, fear of embarrassment takes precedence over thinking about the future and seeking advice.
Topics such as finances, education, and career development/upskilling are closely intertwined with identity and emotional wellbeing. Conversations around these topics can cause discomfort and vulnerability in many teens and parents.

Foundational Identification is necessary for full participation in society.
Access to ID is a significant barrier for some, in particular Indigenous peoples. In most provinces, there is a cost to applying for a birth certificate, which can make the difference in access for low income families.
“I actually did have an education fund, but my mom is a gambling addict and she spent every penny we had. So college and university was not an option for us ... Education is important for me for my kids, because I don’t want them to have to walk in my shoes.”

- mother, Charlottetown

“I signed up to contribute $25 a month for each child... It’s a close shave. All we have in the bank is $51 because we had to pay moving expenses... plus the government says we need to pay back $2,400 (a provincial benefit overpayment), but we don’t feel able to pay.”

- father, Toronto
Annex C: What We Heard: Different Messaging and Mental Models

The different messages revealed competing perspectives about the CLB, with community-based organizations and individuals seeing it as a benefit, and others as an education savings incentive. This causes confusion, but also leads to different expectations of the CLB.
Annex C: Tools: Leverage Point Discussion Cards

Negative Feedback Loops

Parameters
Numbers in a system that determine discrepancy; affect the flow of stock in and out of a system
Example: how easy is it to turn the faucet to let water in the tub? A tax is an adjustable number

Delays
A lag or postpone in feedback loops that causes oscillations, delayed information leads to
overshoots and undershoots with an inability to continually update to rapidly changing demands
Example: electric power plant building time too long to supply changing demands; first successful
supply of new technology to the time when that technology is installed, price adjusting to supply/demand imbalance

Goals of the System

Buffers
A large, stabilizing stock, often physical; size of buffer determines flexibility and reaction time
Example: a lake flooding is less likely than a river; large tub drains slower than a small tub; larger stock

Negative Feedback Loops
Annex C: Tools: Inclusive Design Mix and Match Cards

Temporary/Situational Limitations
Parent is engaged in life long learning

Physical Context
Unconnected to community services

Social Context
Child living on their own
Mismatch to Solution
INCLUSIVE DESIGN CARDS

People living in low income experience scarcity of resources

70% of CLB subscribers save some money in RESPs

Exclusion can be caused by mismatched interactions between other humans, humans and their environments, and humans and objects.

Auto enrollment is the easiest answer

You can not auto enroll someone into a financial contract