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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

ESDC Innovation Lab,
Government of Canada

Presented to Research in Systemic Design 7
Turin, October 24-26, 2018

Connect with us: NC-LAB-GD@hrsdc-rhdcc.gc.ca
[Email us to join our listserv or GCConnex community](#)

[#ESDCinnovationlab](#)

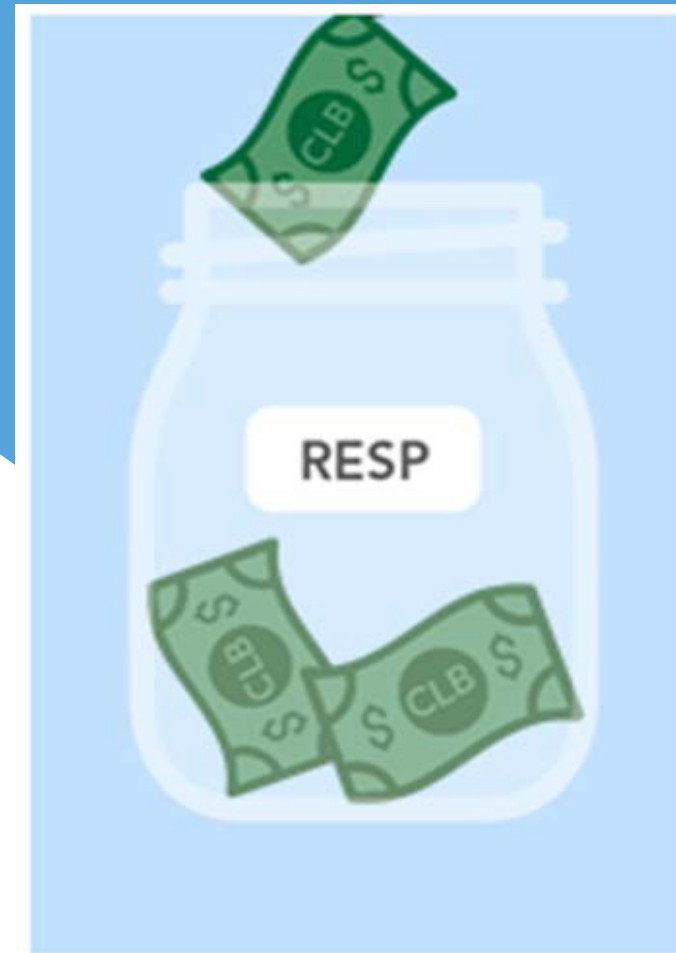




Employment and Social Development Canada (ESDC) provides most of the direct services to Canadians on behalf of the Government of Canada. This includes pensions, employment insurance, disability supports, and student loans, for example.

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 a 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.

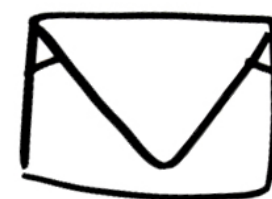
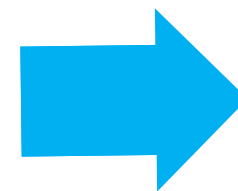
* For children born in 2004 or later

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:

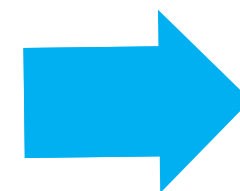


No letter
5% uptake



Standard
letter

Additional
4% uptake



Standard letter +
interventions

No additional increase
in uptake. Some letters
had a negative impact.



Why can't letters alone increase take-up?
What else is at play?



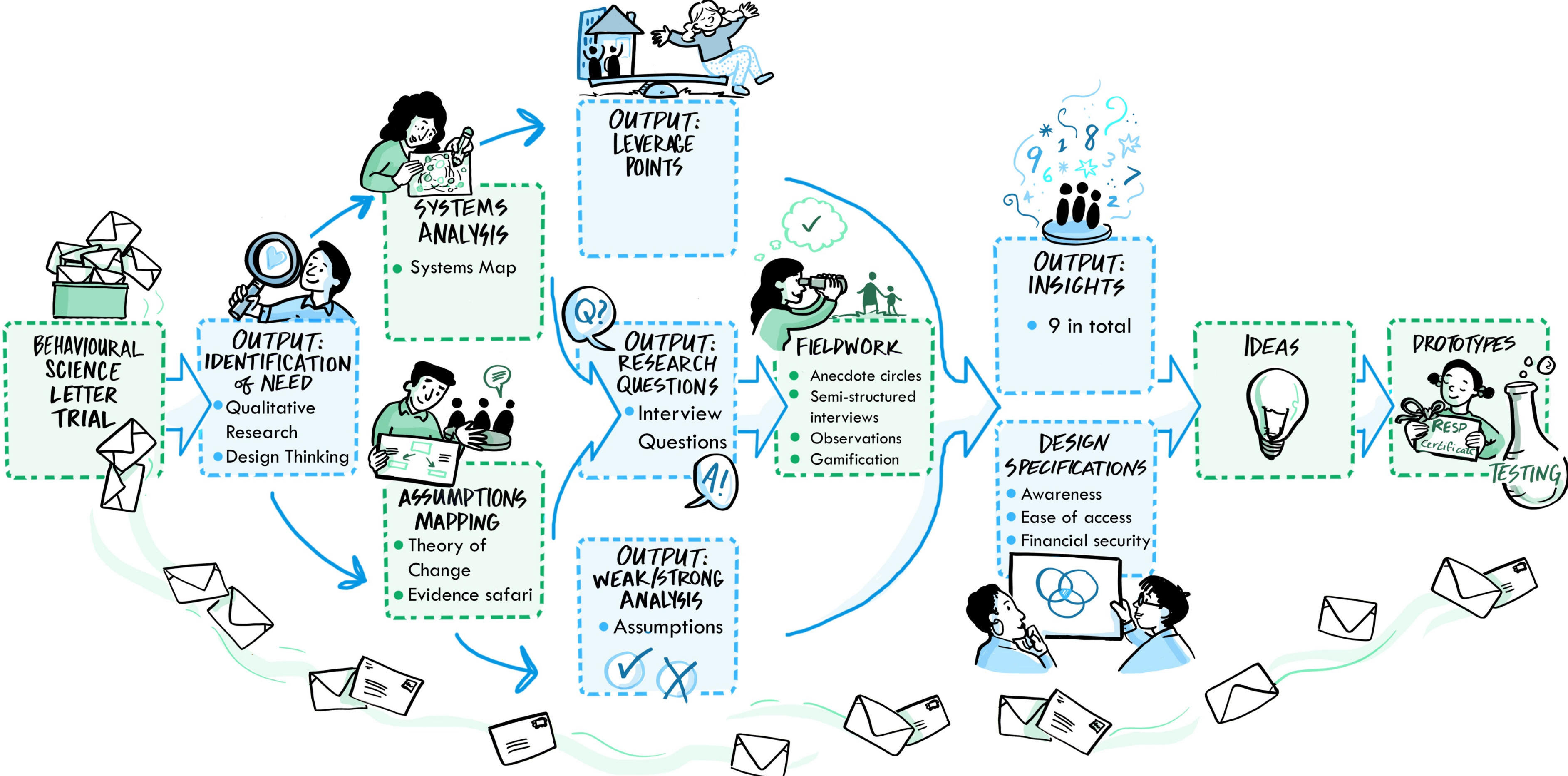
**OUTPUT:
IDENTIFICATION
OF NEED**

- Qualitative Research
- Design Thinking

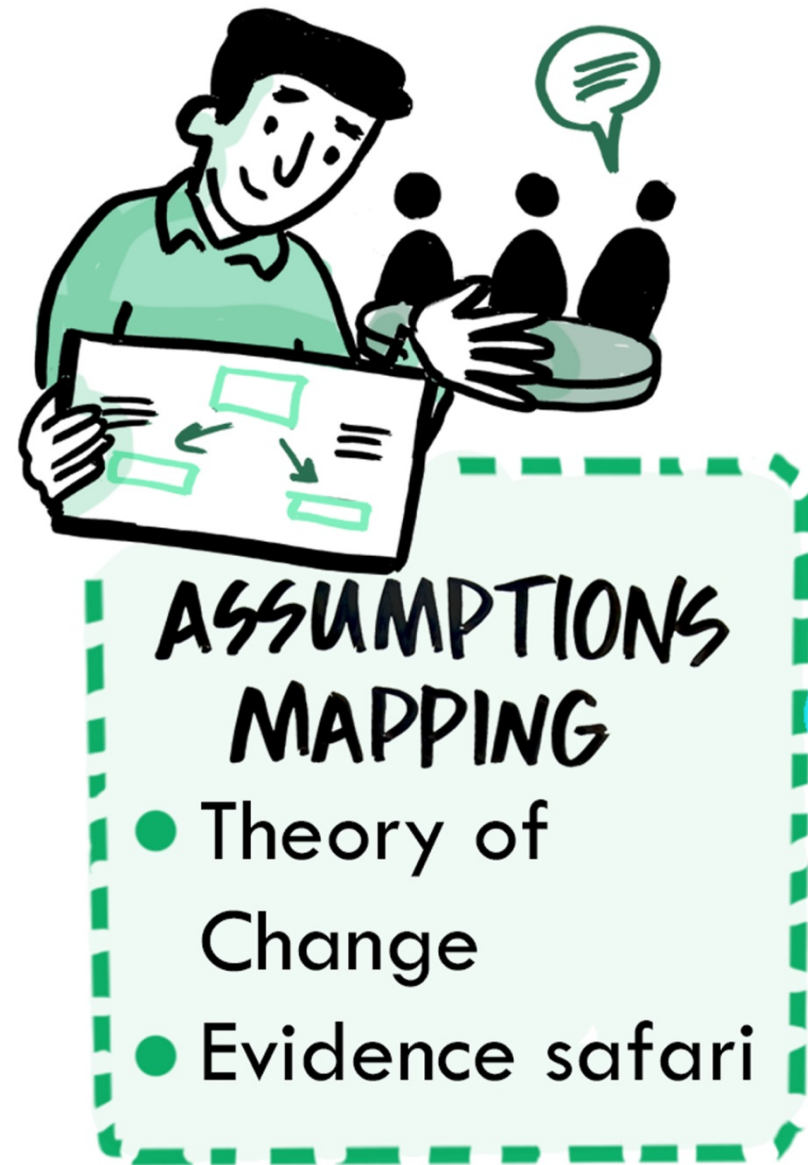
The Design Challenge

- 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

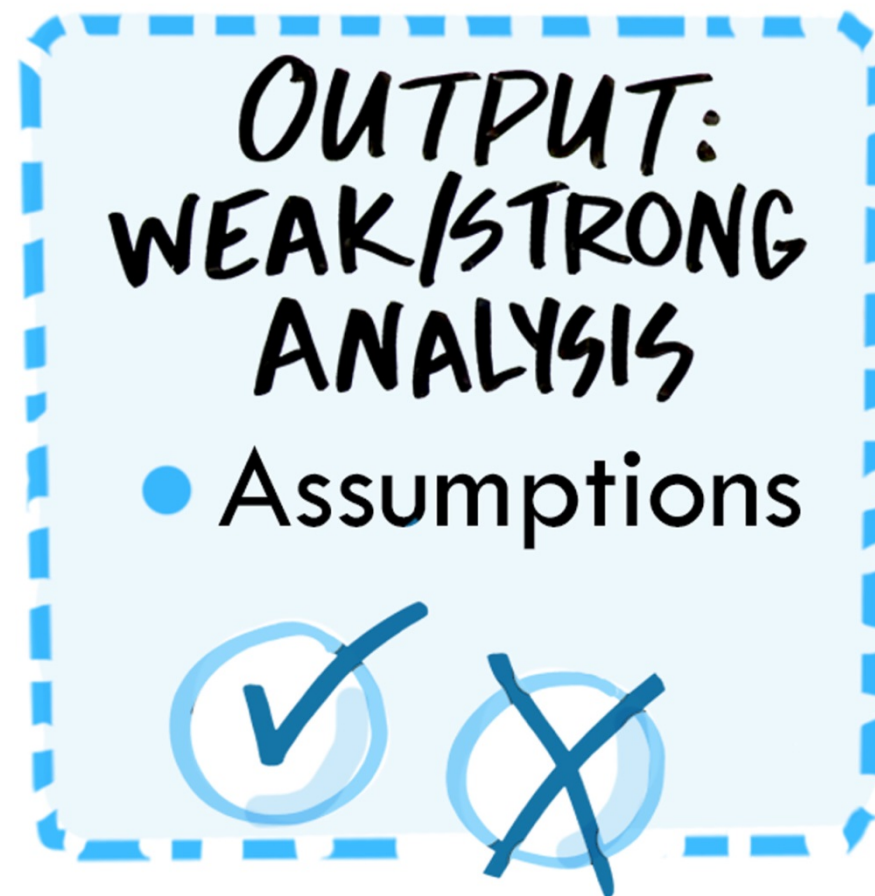
What We Did: A Systemic Approach



Theory of Change: Understanding the How and Why

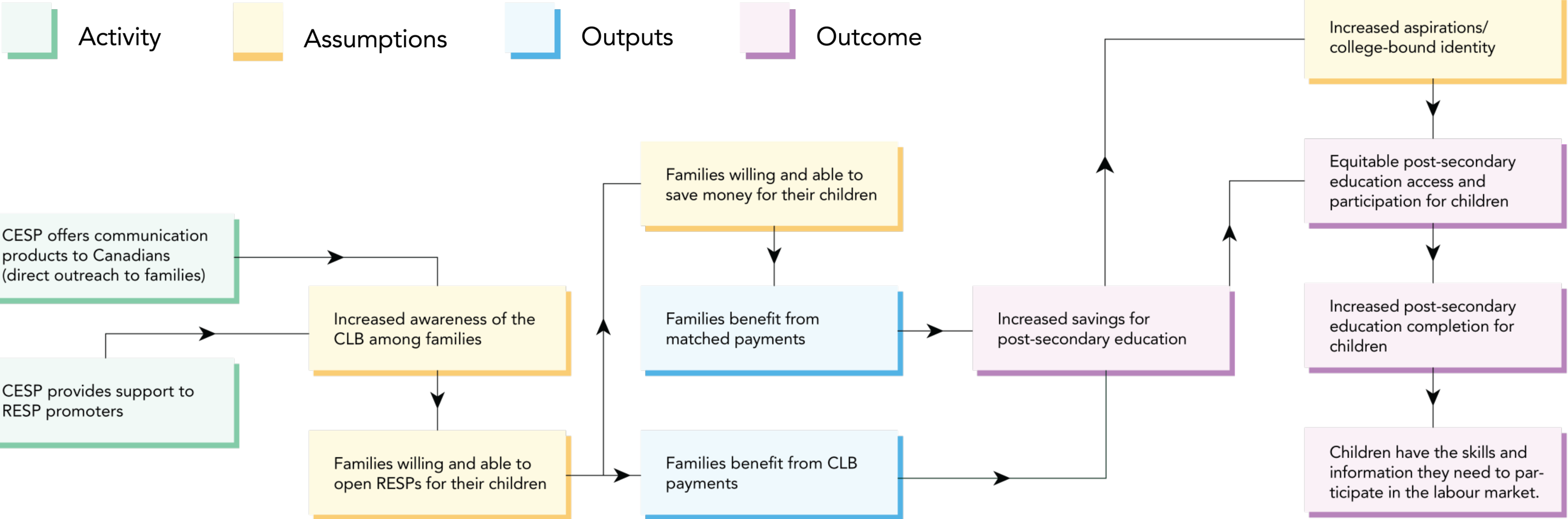


Building upon the program logic model*, this approach unpacks links between activities, outcomes, and contexts of the program, as well as the existing evidence base for each assumption embedded in the program logic.

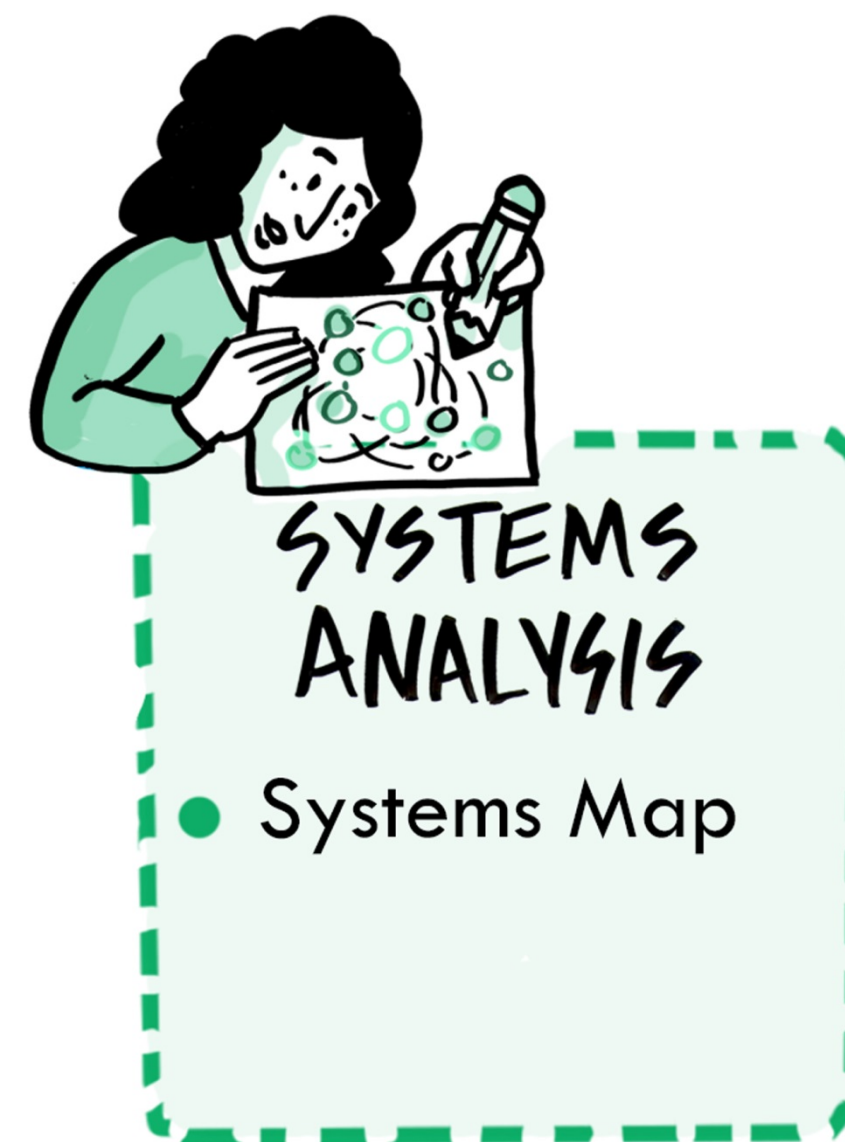
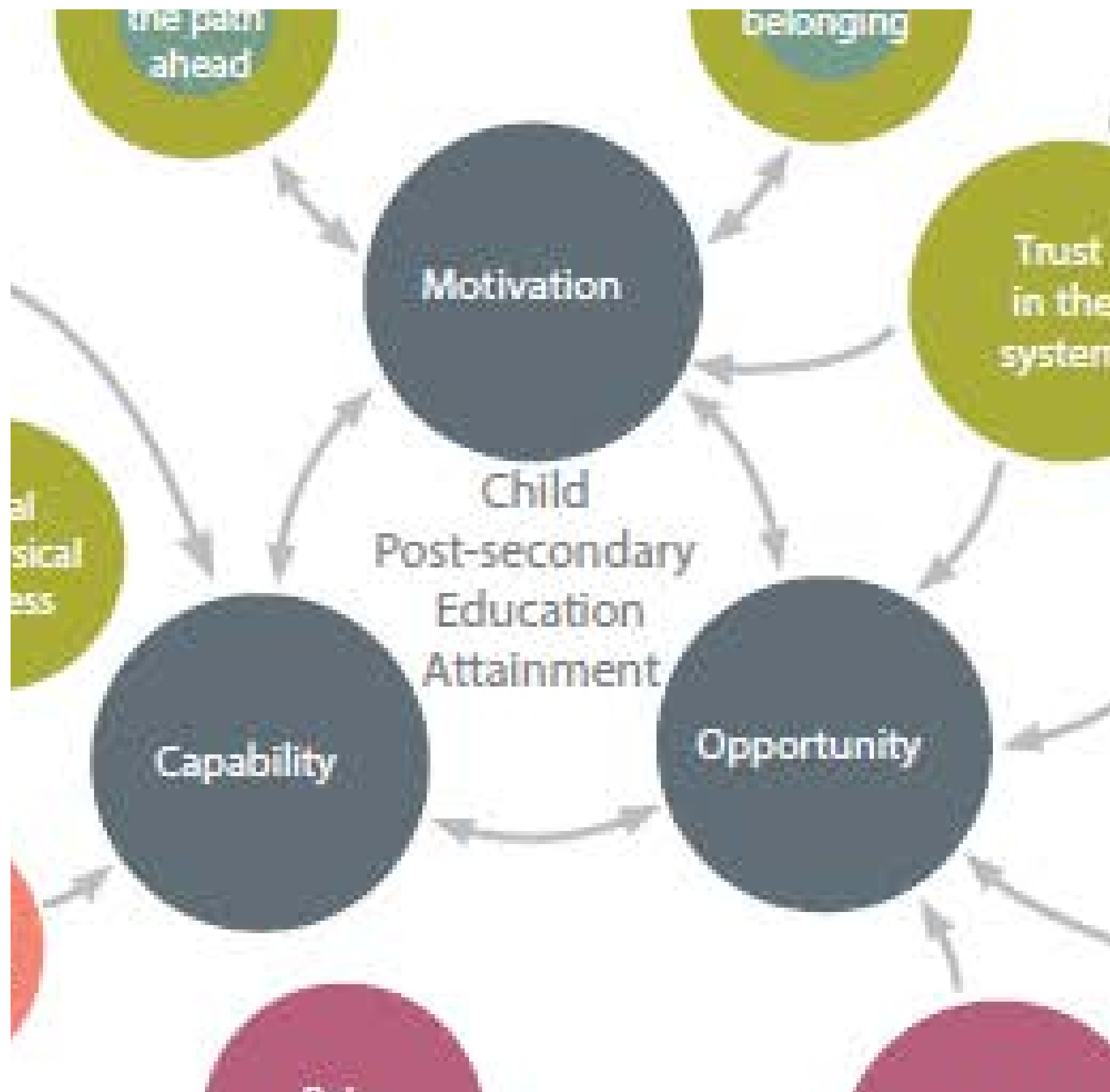


* Canada Education Savings Program Final Performance Information Profile, September 2017.

Theory of Change: Mapping Assumptions

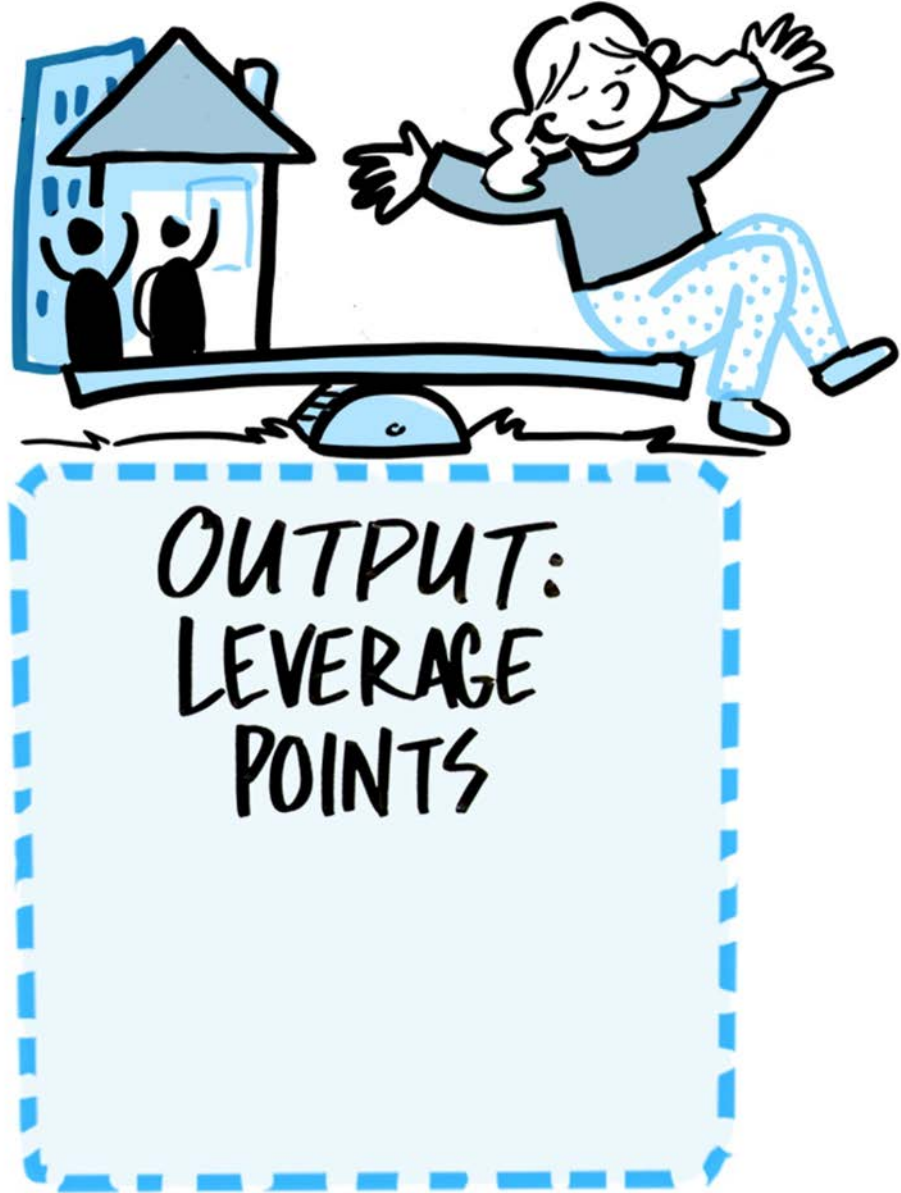
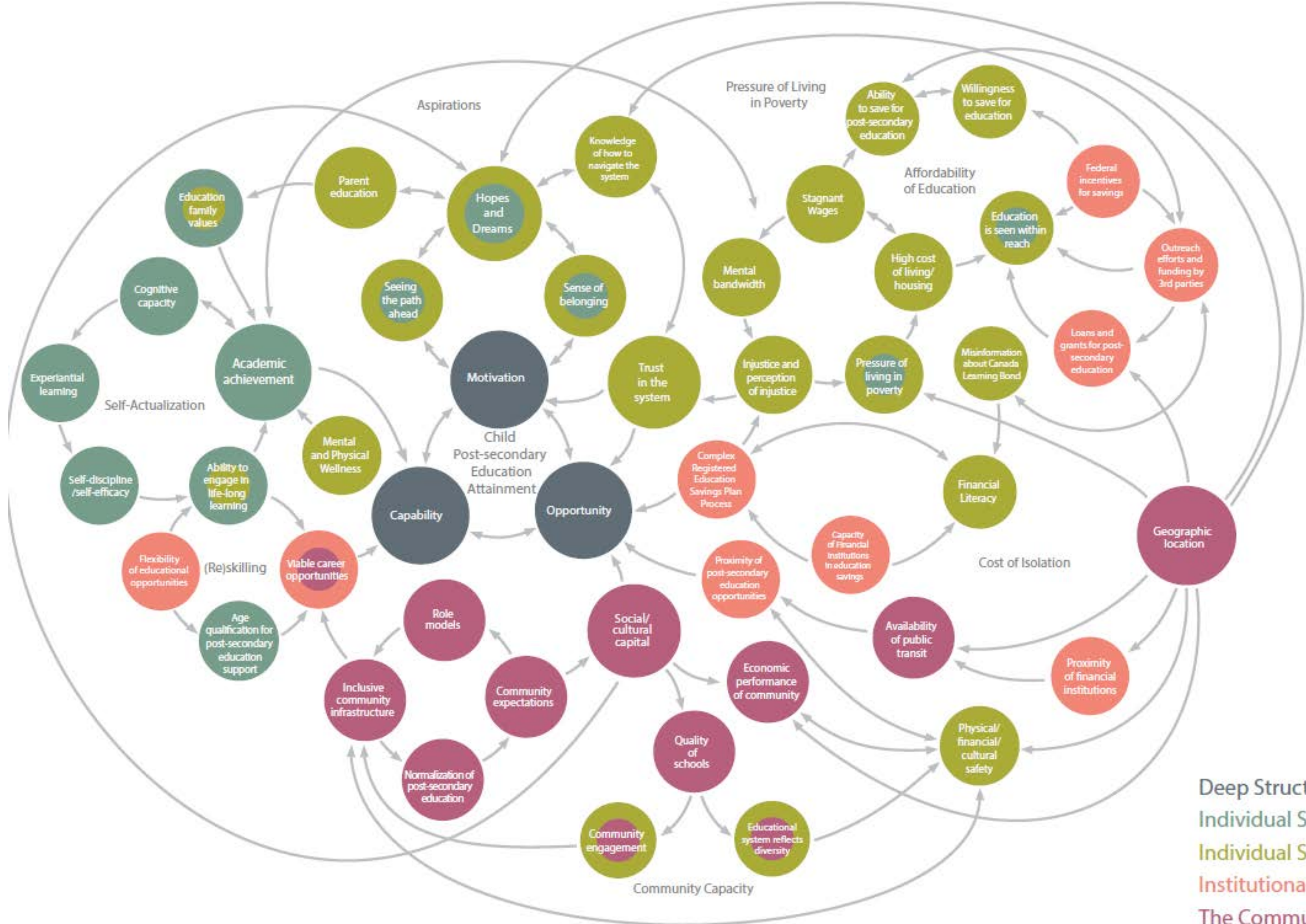


Systems Mapping: Understanding Behaviour Using Motivation, Capability, and Opportunity*



* Michie S, Atkins L, West R. (2014) *The Behaviour Change Wheel: A Guide to Designing Interventions*. London: Silverback Publishing. www.behaviourchangewheel.com.

Educational Attainment Systems Map



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

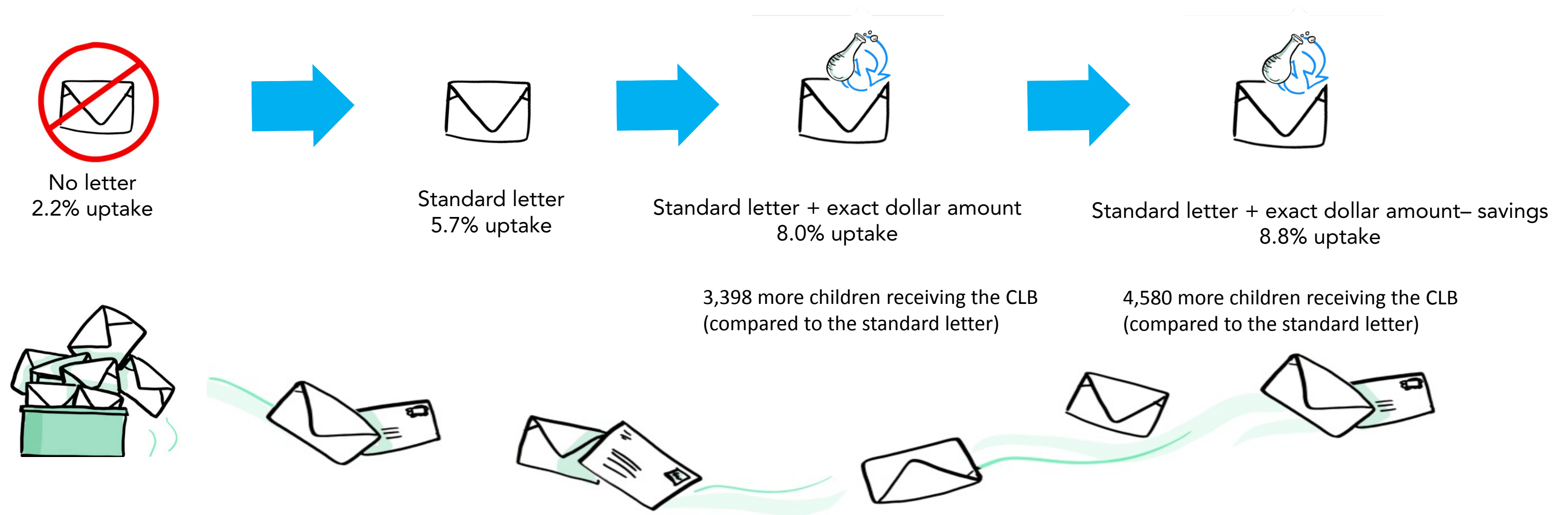
- Credits for youth service
- Post sign-up relationship
- Child Future Savings Boost

- Living insurance
- Non-financial community supports

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Continuous Testing and Experimentation

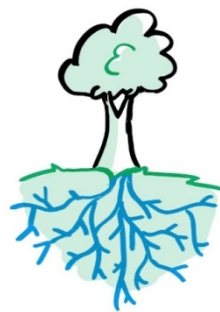
- For example, a new experiment tested 5 variations of the letter based on research findings.
- The letters were sent to parents of the oldest cohort of CLB-eligible children and their impact on uptake was measured after 6 months.



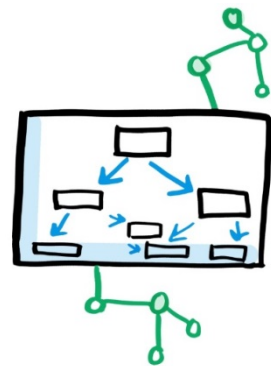
Three Key Take-Aways



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



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



Engaging with the lived experience of Canadians provides a breadth of learning that can help advance holistic approaches.

#ESDCInnovationLab How can you reach us?



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Our Tools and Methods are available on the Lab's GConnex: 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.

Annex C: What we heard: Stories from the field

"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."

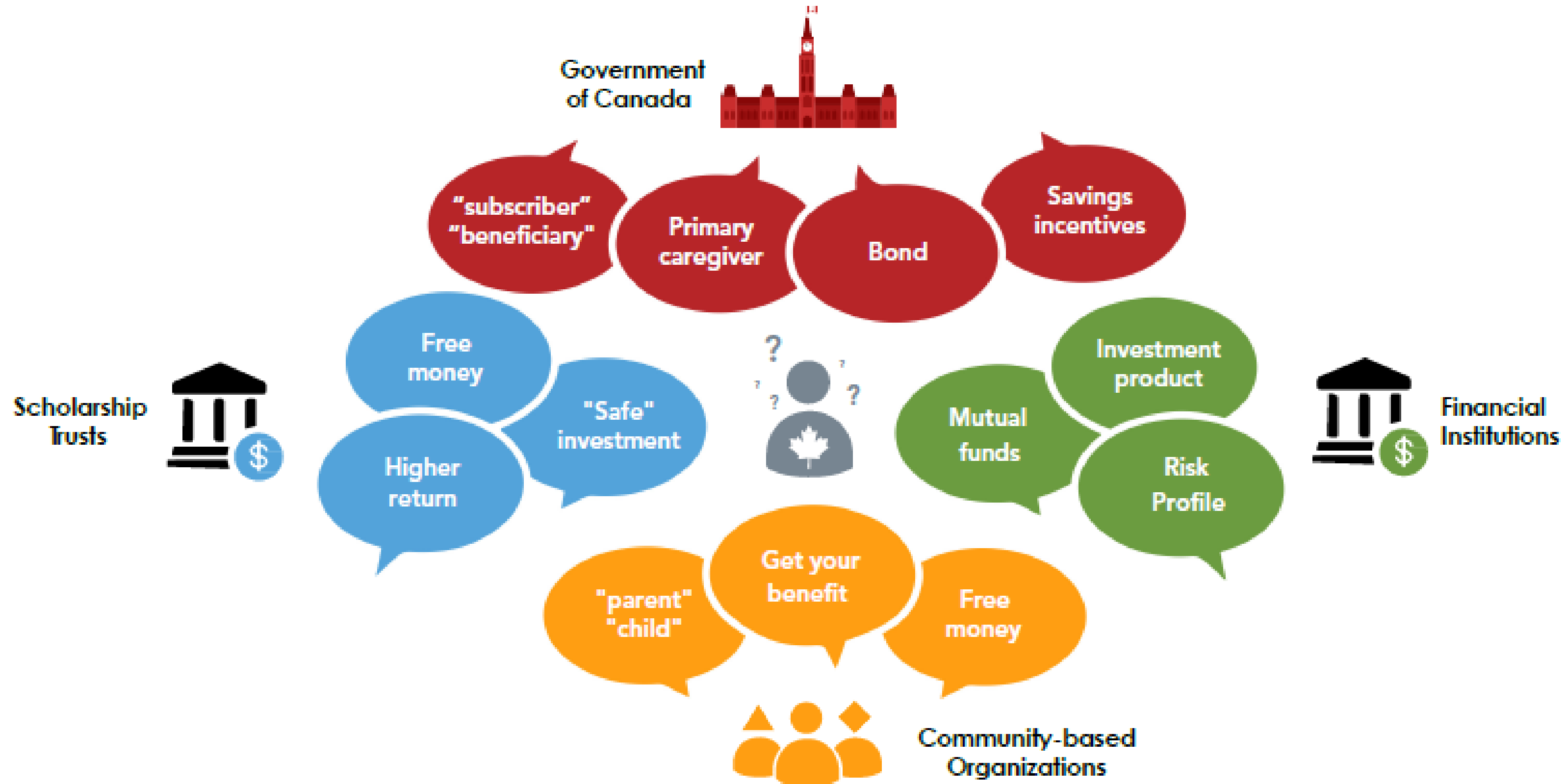
- mother, Charlottetown

"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 into annual deficit

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 test 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 flood; large tub drains slower than a small tub; inventory is always available rather than lag in stock

Annex C: Tools: Inclusive Design Mix and Match Cards

Temporary/Situational Limitations

INCLUSIVE DESIGN CARDS



Parent is engaged
in life long learning

Physical Context

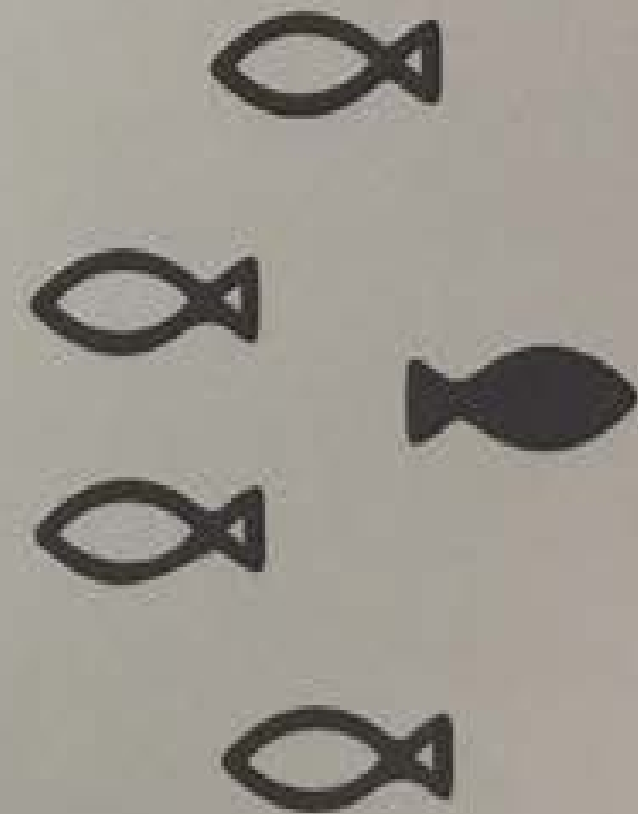
INCLUSIVE DESIGN CARDS



Unconnected
to community
services

Social Context

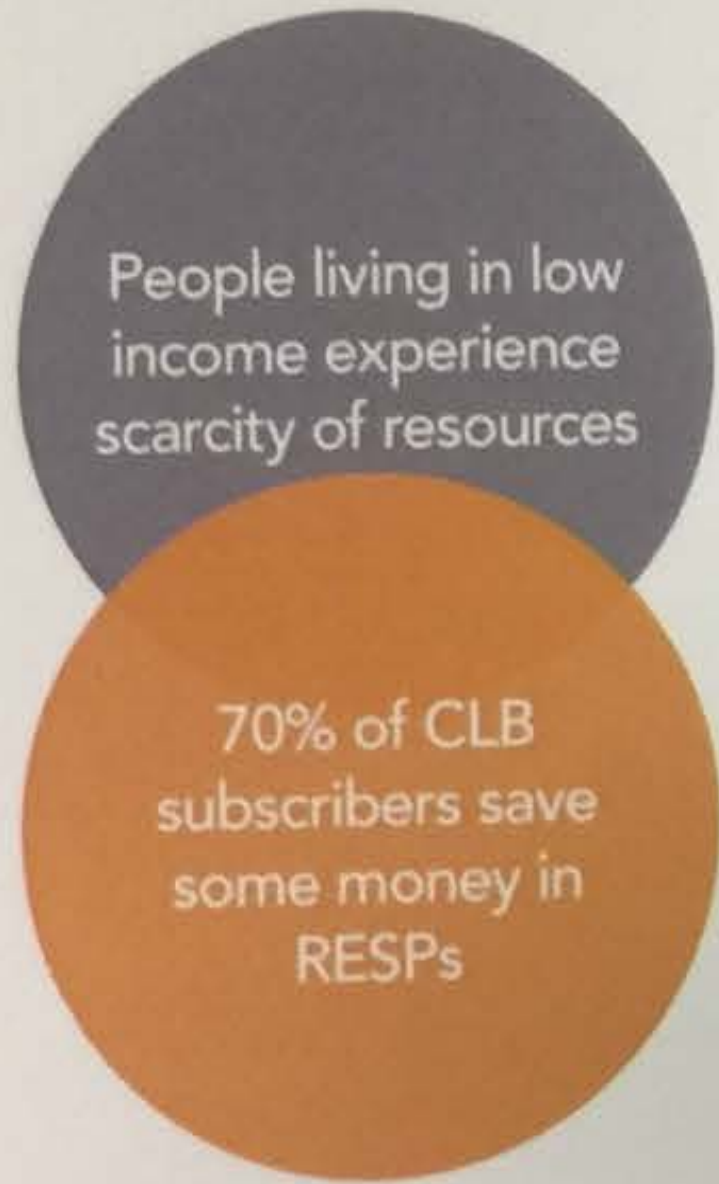
INCLUSIVE DESIGN CARDS



Child living
on their own

Annex C: Tools: Mismatch to Solution Cards

Mismatch to Solution INCLUSIVE DESIGN CARDS



Mismatch to Solution INCLUSIVE DESIGN CARDS

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

Mismatch to Solution INCLUSIVE DESIGN CARDS

