



Fund for Innovation
and Transformation

Fonds pour l'innovation
et la transformation

Creating a Testable Hypothesis



Why Test?

FIT is a unique fund that supports small and medium-sized organizations (SMOs) to test **innovative solutions** to development challenges or problems in the Global South that advance gender equality and/or empower women and girls. Innovation testing is different than project implementation. Whereas project implementation uses existing approaches to achieve pre-defined expected targets or results, innovation testing provides an opportunity to try a new or improved solution and determine if and how well it works. Testing can lead to a proof of concept of an innovative solution by providing early evidence and assessment of its potential.

In order to conduct an effective proof of concept, SMOs must be able to **validate**, with evidence, whether their innovative solution achieved its intended results or not. Identifying a clear hypothesis with defined outcomes that can be measured is a key part of this process.

Key Elements of a Testable Hypothesis

- Define the innovative solution that you want to test to address a given development problem or challenge
- Describe the main intended **impact** or **outcome(s)** of the innovation
 - o Identify a few key variables that are expected to be affected by the innovation and corresponding outcomes for each (3 outcomes or less recommended for short testing period)
 - o Ensure outcomes are practical and results-based
 - o Illustrate a change in state compared to the existing situation
 - o FIT-specific element: demonstrate impact on gender equality and/or women and girls
- Consider major **assumptions** that must be true for your hypothesis to be true

INNOVATIVE SOLUTIONS / INNOVATION:

“A process, mindset, and means to enable new or improved locally-driven solutions for better results and greater impact, which benefit and empower the poorest and most vulnerable, including women and girls.”

Innovative solutions can include business models, policy practices, approaches, partnerships, technologies, behavioral insights, financing mechanisms or ways of delivering products and services.”
(Global Affairs Canada)

VALIDATE:

to support or corroborate a statement with sound evidence

IMPACT:

over-arching result; this may only be achieved beyond the scope of your innovation testing

OUTCOME:

result; the intended value-creation

ASSUMPTION:

the necessary conditions that must exist if the relationships in the hypothesis are to behave as expected

Key Considerations in Developing a Testable Hypothesis

- A testable hypothesis must be possible to validate or invalidate with data:
 - o Can the hypothesis be proven true or false?
 - o What are your **success criteria**?
- **Contribution vs Attribution:** SMOs are expected to measure either the contribution or attribution of their innovation to intended outcomes.

Structuring a Hypothesis

Simple formats for a hypothesis include:

If (assumptions) and (innovation), then (intended impact).

If (innovation), then (intended impact). Assumptions include (assumptions).

The (intended impact) due to / as a result of (innovation) and (assumptions).

The (intended impact) due to / as a result of (innovation). Assumptions include (assumptions).

SUCCESS CRITERIA:

the measurable elements that contribute to validating the hypothesis

CONTRIBUTION:

an innovation is the partial cause that contributes to an impact/outcome

ATTRIBUTION:

an innovation is the main/only reason for attainment of an impact/outcome



Examples:

Non-testable hypothesis	Weaknesses	Testable hypothesis
A mechanical mill may improve women farmers' lives.	<ul style="list-style-type: none"> -<i>Innovation</i> is not specific; no details provided. -<i>Impact/outcome</i> is too broad to be able to see the contribution of the innovation towards expected result. 	A rubber roller mill for millet (innovation), assumed to be affordable, culturally appropriate and accessible to women farmers (assumptions) may increase women farmers' income, reduce their drudgery and reduce their time spent manually milling millet (outcomes).
Canadian health professionals may increase Kenyan knowledge about current health practices.	<ul style="list-style-type: none"> -<i>Innovation</i> is not defined. -<i>Outcomes</i> are vague. 	Establishing a professional knowledge exchange partnership between village health teams in Kenya and health professionals in Canada (innovation), may increase Kenyan access to current health information, improve Kenyan medical practices and decrease maternal mortality (outcomes). Assumptions include that there is interest amongst participants and adequate information and communication technology infrastructure, resources and access (assumptions).



Creating Your Testable Hypothesis

This table can be used as a drawing board to develop your testable hypothesis. By identifying the innovation, assumptions, the change in state and impacts/outcomes, you will be able to use the hypothesis to direct your innovation test.

Innovation	Assumptions	Change in State	Impact/Outcome
<i>What is the innovation?</i>	<i>What must be true for your innovation to achieve impact?</i>	<i>Increase / improve / reduce / etc</i>	<i>What are the intended impacts/outcomes?</i>



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