Evaluation Frameworks and Theory of Change
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Presentation Overview

- Basics of Monitoring and Evaluation
- Introduction to Theory of Change
- Building a Theory of Change in 7 steps
- Linking Theory of Change to M+E
  - Process Evaluation
  - Impact Evaluation
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Why M+E?

- Accountability
- Learning
- Strategy and decision-making
How can impact evaluation help us?

- Surprisingly little hard evidence on what works

- Can do more with given budget with better evidence

- If people knew money was going to programs that worked, could help increase support for anti-poverty programs, enthusiasm of those who work for or with the poor.

- Understanding what works in a particular context also helps us understand why people behave the way they do, what are the constraints they face, and thus design better programs and policies
What is Evaluation?

Evaluation
Program Evaluation
Impact Evaluation
Program Evaluation

Evaluation

Program Evaluation

Impact Evaluation
Monitoring and Evaluation

Monitoring

Impact Evaluation

Program Evaluation

Evaluation
What is M and what is E?

<table>
<thead>
<tr>
<th></th>
<th>Monitoring</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is it?</strong></td>
<td>Ongoing data collection/analysis.</td>
<td>Systematic review of what has happened and why.</td>
</tr>
<tr>
<td></td>
<td>Track changes in context, progress toward results.</td>
<td>Determine relevance, efficiency, effectiveness, impact.</td>
</tr>
<tr>
<td><strong>Why do it?</strong></td>
<td>Inform day-to-day decision-making</td>
<td>Accountability and learning</td>
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<tr>
<td></td>
<td>Accountability and reporting</td>
<td>Improve current and future programs</td>
</tr>
<tr>
<td><strong>Who does it?</strong></td>
<td>Internal staff</td>
<td>External consultants and program staff</td>
</tr>
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Monitoring Evaluation
M+E is about answering questions

- What are the characteristics of the target population? What are the risks and opportunities? What programs are most suitable?  
  Needs assessment

- What is the logical chain connecting our program to the desired results?  
  Program theory assessment

- Is the program being rolled out as planned? Is their high uptake among clients? What do they think of it?  
  Monitoring and process evaluation

- What was the impact and the magnitude of the program?  
  Impact evaluation

- Given the magnitude of impact and cost, how efficient is the program?  
  Cost effectiveness

Are your questions connected to decision-making?
How to answer these questions

- **Quantitative methods**
  - Administrative records, surveys, structured interviews, census data

- **Qualitative methods**
  - Observation, interviews, focus group discussions
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## Programs and their Evaluations: where do we start?

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Program Evaluation</th>
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</thead>
<tbody>
<tr>
<td>Start with a problem</td>
<td>Start with a question</td>
</tr>
<tr>
<td>Verify that the problem actually exists</td>
<td>Verify the question hasn’t been answered</td>
</tr>
<tr>
<td>Generate a theory of why the problem exists</td>
<td>State a hypothesis</td>
</tr>
<tr>
<td>Design the program</td>
<td>Design the evaluation</td>
</tr>
<tr>
<td>Think about whether the solution is cost effective</td>
<td>Determine whether the value of the answer is worth the cost of the evaluation</td>
</tr>
</tbody>
</table>
Defining Theory of Change (ToC)

Theory of change is an on-going process of reflection to explore change and how it happens – and what that means in a particular context, sector, and/or group of people.
“ToC Thinking”

- Blueprint of the building blocks needed to achieve a goal
- Structured way of thinking about change and impact organizations would like to achieve
- Integrated approach to program design, implementation, M+E, and communication
ToC: School-Based Malaria Intervention

Assumptions

Increased School Attendance

Improved Cognition

Increased Concentration

Higher Test Scores

Test accurately measures knowledge

Assumptions

INCREASED KNOWLEDGE

Increased Concentration

Reduced Anemia

Reduced Asymptomatic Parasitemia

Reduced Clinical Attacks

Malaria Intervention

Children adhere to full med regime
Common traits across ToCs

- Rooted in context and stakeholder analysis
- Causal pathway (the arrows)
- Identifies assumptions
- Derived through a participatory process
## Logical Framework

<table>
<thead>
<tr>
<th>Objectives Hierarchy</th>
<th>Indicators</th>
<th>Sources of Verification</th>
<th>Assumptions / Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact (Goal/Overall objective)</strong></td>
<td>Higher income</td>
<td>Spending</td>
<td>Household survey</td>
</tr>
<tr>
<td><strong>Outcome (Project Objective)</strong></td>
<td>Households start new businesses; expand existing ones</td>
<td>Purchase of durable goods</td>
<td>Household survey</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Increased MFI borrowing</td>
<td>Number of microloans</td>
<td>Household survey, Administrative data from MFIs</td>
</tr>
<tr>
<td><strong>Inputs (Activities)</strong></td>
<td>MFI branches are opened</td>
<td>Branches are operating; providing services</td>
<td>Branch visits/surveys</td>
</tr>
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</table>
ToC v. Logical Framework

- ToC’s visually depicted
  - Tell a clearer story
  - More flexible

- Greater emphasis on assumptions

- Log frames are enshrined in results-based contracts

- “Missing middle” of log frames – Explicating building blocks of change
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7 Steps to Building a ToC

1. Situation analysis – Specifying the context
2. Clarify the program goal
3. Design the program/product
4. Map the causal pathway
5. Design SMART indicators
6. Explicate assumptions
7. Convert to Logical Framework
Expansion of Spandana

Where: Slums in Hyderabad, India

What: Microfinance for women

Why: Profit, poverty reduction, empowerment
Step 1: Situation/Context Analysis

- **What it is:**
  - Identifying target market segment (beneficiaries)
  - Needs, opportunities, barriers to progress
  - Map relevant stakeholders
  - Analyze broader political and economic context

- **Purpose:**
  - Design the right product, identify markers for success

**ToC Step 1:** Map opportunities, risks, broader context
Hyderabad survey results

- Monthly expenditure per capita: Rs. 1,006 (USD 22)
- Household debt: Rs. 45,538 (USD 1,011)
- Male literacy: 68%
- Female literacy: 54%
- Women working outside the home: 21%
Analysis of Underlying Issues/Consequences

- **Low income, high debt**
  - Limited access to formal financial services
  - Unable to smooth income
  - Lack of resources to invest in businesses

- **Gender inequality**
  - Women do not control resources
  - Limited decision-making power w/n hh
  - Underinvestment in health and education
Building a Theory of Change

Situation/Context Analysis: Low income, high debt, gender inequality
Revisiting the program

- How will the program address the needs put forth in your situation/context analysis?
  - What are the prerequisites to meet the needs?
  - How and why are those requirements currently lacking or failing?
  - How does the program intend to target or circumvent shortcomings?
  - What services will be offered?
Building a Theory of Change – Step 2

**GOAL**
Raising Income

**Situation/Context Analysis:** Low income, high debt, gender inequality
ToC Step 2 – Setting program goals

- Raise income - Increasing investment in business and household assets
- Shift bargaining power within households
- Increase health and education spending
ToC Step 3– Design the product

- Spandana - A traditional microcredit program
  - Group liability
  - Loans only to women
  - Weekly or monthly repayment
  - Starting loan is Rs. 10,000 (~USD 250)
  - Interest rate: 12% per year non-declining balance (24% APR)
Weigh alternative solutions

- Conditional cash transfers
- Skills development courses
- Literacy programs
- Gender empowerment
Building a Theory of Change

**Input**
Offer loans to women

**Goal**
Raising Income

**Situation/Context Analysis:** Low income, high debt, gender inequality
Step 4 - Mapping the causal pathway

- Step-by-step laying out the theory connecting your product/program to the goal
- Series of if…/then… statements forming results chain
Building a Theory of Change – Step 4

**INPUT**
- Open Spandana branches targeting women

**OUTPUT**
- Women take out loans
- Choose to invest in new or existing businesses

**OUTCOME**
- Businesses are profitable

**GOAL**
- Higher incomes

**Situation/Context Analysis:** Low income, high debt, gender inequality

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[Logos of ABDUL LATIF JAMEEL Poverty Action Lab, IFMR, CERP, and clear]
Theory of change levels

- **Goal:** Broadest aim of the product
- **Outcome:** Type of change as a prerequisite
- **Output:** Tangible deliverable from activities
- **Activity:** Concrete Events or services
- **Input:** Human, financial, technical resources
Step 5 – Design indicators

- Indicators v. levels of results (goal, outcome, output, input)

- Indicators are signals of change, measures of progress
Designing good indicators

- Quantitative and qualitative
- Standard of comparison (i.e. baseline v. endline, defining “high-quality,” etc.)
- SMART
  - Specific
  - Measurable
  - Achievable
  - Reliable
  - Time-bound
Situation/Context Analysis: Low income, high debt, gender inequality

OUTCOME

Building a Theory of Change – Step 4

GOAL

INPUT

OUTPUT

After 6 months, 80% of planned branches opened and operational.

Open Spandana branches targeting women

After 9 months, 20% of eligible women have taken out a loan at a Spandana branch.

Women take out loans

After 12 months, 25% of the women who have taken out a loan have invested in a business.

Choose to invest in new or existing businesses

After 18 months, 50% of the businesses started by women with Spandana loans are profitable.

Businesses are profitable

After 18 months, 40% of the women who have started businesses with Spandana loans have incomes at least 10% higher.

Higher incomes
Step 6 – Explicate assumptions

Assumptions are the theories in theory of change thinking: Key to unlocking the theory of change thinking

“I think you should be more explicit here in step two.”
Building a Theory of Change – Step 6

**Situation/Context Analysis:** Low income, high debt, gender inequality

- **Open Spandana branches targeting women**
- **Women take out loans**
- **Choose to invest in new or existing businesses**
- **Businesses are profitable**
- **Higher incomes**

- **Access to a branch**
- **Eligible for a loan**
- **Apply for a loan**
- **Access to business networks**
- **Know which businesses are profitable**
- **Women have entrepreneurial skills**
- **No external shocks**

- **After 6 months, 80% of planned branches opened and operational.**
- **After 9 months, 20% of eligible women have taken out a loan at a Spandana branch.**
- **After 12 months, 25% of the women who have taken out a loan have invested in a business.**
- **After 18 months, 50% of the businesses started by women w/ Spandana loans are profitable.**
- **After 18 months, 40% of the women who have started businesses with Spandana loans have incomes at least 10% higher.**
### Objectives Hierarchy
- **Impact (Goal/Overall objective):** Higher income
- **Outcome (Project Objective):** Households start new businesses; expand existing ones
- **Outputs:** Increased MFI borrowing
- **Inputs (Activities):** MFI branches are opened

### Indicators
- **Impact:** Spending
- **Outcome:** Purchase of durable goods
- **Outputs:** Number of microloans
- **Inputs:** Branches are operating; providing services

### Sources of Verification
- **Impact:** Household survey
- **Outcome:** Household survey
- **Outputs:** Household survey, Administrative data from MFIs
- **Inputs:** Branch visits/surveys

### Assumptions / Threats
- **Impact:** Business well-run, are profitable, no external shocks
- **Outcome:** No problems of self-control, time-inconsistency. HHs can identify good investment opportunities
- **Outputs:** Women have access to branches. No borrowing from informal sources
- **Inputs:** Sufficient technical and human resources, funding

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**Step 7 – ToC to Logical Framework**

**Needs assessment**

**Impact evaluation**

**Process evaluation, monitoring**
Step 7 – ToC to Logical Framework

- Map across goal/impact, outcome, outputs

- Choose most critical indicators and assumptions
  - Based on what you will measure and monitor
7 Steps to Building a ToC

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Making the program work

PROCESS EVALUATION
Process Evaluation (*and monitoring*)

- Are the services being delivered?
- Is the intervention reaching the target population?
- Is the intervention being completed well or efficiently and to the beneficiaries’ satisfaction?
Process Evaluation

- **Supply Side**: *Did Spandana deliver?*
  - Logistics
  - Management

- **Demand Side**: *How did women respond?*
  - Did the assumptions of women’s response hold?
  - Was there behavior change?
Process Evaluation: Demand-side

- Do households borrow more credit from MFIs?
  - 27% of eligible households took-up loans from Spandana or another MFI

- Do households invest in new businesses?
  - 30% of Spandana borrowers reported they used their loan for starting a new business

- Do households expand existing businesses?
  - 22% of Spandana borrowers reported they used their loan to buy assets for an existing business
Process was okay, so….

- What happened to income?
Measuring how well it worked

IMPACT EVALUATION
How Impact differs from Process?

- When we answer a **process question**, we describe what happened.

- When we answer an **impact question**, we need to compare what happened to what would have happened without the program.
What is Impact?
Measuring Impact of Spandana

- Primary outcome (impact): did access to credit increase the number and size of businesses (household income)?
RANDOMIZED EVALUATION
Before the program starts individuals are *randomly* assigned (via LOTTERY) to two groups.

Two groups continue to be identical, except for treatment

Later, compare outcomes (health, test scores) between the two groups.

Any difference between the groups can be attributed to the program.
Spandana Sample

Total Population (All neighborhoods)

Target Population (120)

Not in evaluation (16)

Evaluation Sample (104)

Random Assignment

Control (52)

Treatment (52)
Impact: Primary Outcome

- Borrowing from MFIs was 27% in treatment, 19% in control

- New business creation increased by 1/3
  - 5.3 new businesses per 100 households in Control, 7.0 in Treatment
  - 1 in 5 additional MFI loans led to a new business that would not have been started otherwise

- Spending on durable goods increased by 1/5
  - Control: Rs 116 per capita per month, Treatment: Rs 140
  - Spending on durables used in a business more than doubled
Impact: Distributional Questions

- Entrepreneurs
  - People with businesses bought more durable goods
  - Those more likely to start a new businesses cut back sharply on temptation goods (alcohol, tea etc.)

- Non-Entrepreneurs
  - Those not likely to start a new business spent more on non-durable goods
    - Could have used the loan to pay off old debt
    - Could have simply used the loan to consume more today
Impact: Secondary Outcomes

- Women’s empowerment
  - Women in treatment areas no more likely to make decisions about household spending, investment or savings

- Health and education
  - No improvement in health or education outcomes
Situation/Context Analysis: Low income, high debt, gender inequality