Programme Theory and Theory of Change Analysis

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The Policy Cycle

Understanding the Problem (Conceptualisation)

Monitoring and Evaluation (M&E)

Developing Solutions (Policy Development)

Putting Solutions Into Effect (Implementation)
Evaluation:
Programme Theory/Theory of Change/Logic Model

• How is a policy/programme supposed to work?
• What activities, mechanisms, people have to be in place?
• And in what sequence – what is the causal chain?
• What resources are required – and are available?
• What data are required – and are available?
• Is the policy/programme feasible/achievable?
Building a Theory of Change: From Inputs to Outcomes

- **IMPACTS**
  - What we aim to change?

- **OUTCOMES**
  - What we wish to achieve?

- **OUTPUTS**
  - What we produce or deliver?

- **ACTIVITIES**
  - What we do?

- **INPUTS**
  - What we use to do the work?

The long term developmental results at a societal level that is the logical consequence of achieving specific outcomes.

The medium-term results for specific beneficiaries that are a logical consequence of achieving specific outputs.

The final products, or goods and services produced for delivery.

The processes or actions that use a range of inputs to produce the desired outputs and ultimately outcomes.

The resources that contribute to the production and delivery of outputs.
**Inputs**

- What we use

**Activities**

- What we do

**Outputs**

- What we produce or deliver

**Outcomes**

- What we wish to achieve

**Impacts**

- What we aim to change

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The resources that contribute to the production and delivery of outputs. The processes or actions that use a range of inputs to produce the desired outputs and ultimately outcomes. Services produced for delivery. The medium-term results for specific outcomes. Achieving specific outcomes. The long-term developmental results at a societal level that is the logical consequence of the medium-term results of specific outcomes.

- The medium-term results of specific outcomes.

- The long-term developmental results at a societal level that is the logical consequence of the medium-term results of specific outcomes.

- Achieving specific outcomes.

- Services produced for delivery.

- The medium-term results for specific outcomes.

- What we wish to achieve.

- What we produce or deliver.

- What we do.

- What we use.

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Constituent Features of a Theory of Change

- Inputs
- Activities
- Mechanisms
- People/Agencies
- Outputs
- Outcomes
- Impacts
Establishing the Policy Logic/Theory of Change

Basic Principles

• Map out the causal chain
• Understand context
• Anticipate heterogeneity
• Rigorous evaluation of impact using an appropriate counterfactual
• Rigorous factual analysis
• Use mixed methods
Example: Using program theories for SR of education interventions
Improved nutrition and health

- School-based health
- School feeding

Improved student health

Students have improved concentration/ability to learn

Enrolment, attendance & drop-out

- Fewer absences

Learning and completion

Improved quality of teaching and learning environment

- Improved student health
- Higher perceived benefits
- More effective lessons
- More quality resources
- More & better teachers
- More & higher quality contact time

Increased access to schooling

- Material incentives for schooling
- Lower costs of schooling
- Increased demand for education

System

- Private sector involvement
- School-based management
- Community based monitoring & accountability

School

- New schools & infrastructure
- More & better quality resource
- More & higher quality contact time
- More effective lessons

Teachers

- Teacher training
- Hiring teachers
- Teacher incentives & accountability

Household

- Providing information
- Scholarships
- Fee reduction/elimination

Child

- Providing information
- Scholarships
- Cash transfers

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Inputs

- Financial resources
- Staff
- Educational Material

Activities

Information Campaign (via radio, newspaper, door to door, village or parents meetings)

Training on the use of tools to monitor education service providers (eg: score cards)

Outputs

Citizens participate in monitoring activities such as public forums, school/village committees, school visits, parent meetings/associations; make complaints if services are lacking

Intermediate Outcomes

Increased responsiveness and accountability of providers and politicians: greater teacher effort and better resource allocation

Final Outcomes

Improved education outcomes: increase in student learning and completion

Assumptions:

- Adequate resources are available to pay for educational material, staff delivering training
- Staff is qualified to deliver appropriate training and facilitate information campaigns
- Community participants receive adequate information on the performance of educational services provided as well as training/instructions on how to use the tools to monitor education service providers
- The information solves potential information gap/ asymmetry and attention span problem.

Assumptions:

- Community members are aware of the program
- Participants want and are able to participate in decision-making and hold public officials to account as they believe that it will improve
- Participants are able to coordinate action to collectively pressure providers (high degree of social cohesion/low expectation of free-riding)
- Institutions are in place to avoid elite capture of monitoring process

Assumptions:

- Political authorities are accountable and the given community is important to the politician’s electoral strategy
- Providers (schools/teachers) are accountable to politicians and the community
- Community members/parents have sufficient capital and voice to change providers’ behaviour

Assumptions:

- Children are able to attend school regularly
- Available resources are sufficient to improve student outcomes

Financial resources

- Staff

Educational Material
Exercise 1

• Develop a program theory for your selected intervention, identifying key inputs, activities, outputs, intermediate and final outcomes.

• Identify assumptions associated with each stage of the causal chain
What types of data/information do you need to test the program theory of change?
Theories of Change – Data Required

- Surveys, statistics, demographic data
- Qualitative data
- Systematic review data
- Documentary analysis

- Performance data
- Historical data
- Diversity data
- Qualitative data
- Effectiveness data

- Counterfactual data
- Administrative data
- Survey data, statistics

- Administrative data
- Performance data
- Qualitative data

- Administrative data
- Performance data
- Costs/benefits data

- Performance data
- Effectiveness data
- Stakeholder data
- Qualitative data
- Costs/benefits data

- Stakeholder data
- Qualitative data
- Public opinion data
- Effectiveness data
Unpacking the theory of change of an education intervention

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Enhancing learning in India

This 3ie supported impact evaluation was conducted in **Mahendragarh and Kurukshetra districts** of Haryana, India.

Researchers from J-PAL collaborated with the Government of Haryana.

Impact evaluation of two interventions:
- Continuous and Comprehensive Evaluation system (CCE)
- Learning Enhancement Programme (LEP)

Mainly looked at impact on children in grades 1-4


Continuous and Comprehensive Evaluation emphasises:

- Frequent and broad based feedback on student performance
- Assessment of academic and non-academic performance
- Variety of techniques to assess performance
Learning Enhancement Programme

Developed by Pratham, a large Indian NGO focussing on basic literacy and numeracy

- Programme involves quick oral assessment of students
- Classes are regrouped according to learning level rather than grade.
On the request of the government, researchers revived school monitoring system.

The system includes block and district supervisors, field level monitors.

Monitoring consisted of:

- Surprise visits to each of the schools
- Extensive questionnaires on implementation, availability of inputs such as text books and uniforms
- Observations of randomly selected teacher in the classroom
Research questions

• Does Continuous and Comprehensive Evaluation improve test scores in Hindi and Maths?

• Does the Learning Enhancement Programme improve test scores in Hindi and Maths?

• Does a combination of both improve test scores in Hindi and Maths?
Randomised Controlled Trial

400 schools

- 100 CCE schools
- 100 LEP schools
- 100 CCE+LEP schools
- 100 schools in control group
Results

- Students in CCE schools did not perform significantly better than students in control schools.

- LEP had a large, positive and statistically significant effect on students’ basic Hindi reading abilities, both oral and written tests.

- LEP had a larger effect for girls than boys.

- Combining LEP and CCE had no significant effect on test scores relative to the LEP programme alone.
Why didn’t CCE work?

Process monitoring showed:

• CCE training did not lead to change in teaching practices.

• School headmasters thought requirements to be burdensome and time consuming. Guidelines were unclear.

• Overall, CCE not well implemented.

• LEP on the other hand had a high level of compliance and was well implemented.
CCE Theory of Change

CCE Teacher training → Frequent evaluation of students → Customised teaching approach → Improvement in learning

Assumptions not met

Teacher training is adequate.

Teachers have time and resources to implement.

Teachers have pedagogical tools.

Teachers attend training.
LEP Theory of Change

1. LEP Teacher training
2. Evaluate and restructure class
3. Teach at the appropriate level
4. Improvement in learning

Assumptions met in most part:
- Teacher training is adequate.
- Teachers have time and resources to implement.
- Teachers have pedagogical tools.
- Teachers attend training.
Key takeaways

• Process monitoring helped collect data along the causal chain

• Process monitoring is important for implementation

• It helped answer the question of ‘why’ the programme worked or did not work

• Theory of change maximises the value of research for policy and practice
Exercise 2

• Identify questions that would allow you to test the program theory
• What type of data would you need?
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