Introduction to the Logic Model: A Compilation of Information

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What is a Logic Model?

A simplified picture of a program, initiative, or intervention that shows the logical relationship among the resources invested, the activities that take place and the benefits or changes that result.

“Evaluation: Promise & Performance” (1979)
“The Seven Levels of Evidence” (1976)
What is the Purpose of a Logic Model?

• Program Planning
• Program Management
• Consensus Building
• Communication

Also...communicate with other states, standardize reporting, simplify our perspective, plan future programming, meet requirements of USDA & other funding agencies, evaluate programs, look at the whole picture, utilize a common language, think clearly about our goals & outcomes, & write proposals.
Types of Logic Models

NIDRR Logic Model: Targeted Outcome Arenas

C-B R&D KT

Short Term Outcome Arenas – Advances in Understanding, Knowledge, Skills, and Learning Systems via:
- Discoveries
- Theories, Measures, & Methods
- Interventions, Products, Devices, & Environmental Adaptations

Intermediate Outcomes: Adopt and Use of New Knowledge Leading to Changes in Overall Condition:
- Policy
- Practice
- Behavior

People with disabilities & family members
Internal and external stakeholders

Major Domains of NIDRR Mission

Performance Assessment & Outcomes Evaluation

Contextual Factors: Variable funding; scientific and technological advancement; societal attitudes; economic conditions; changing public policies; coordination and cooperation with other government entities.

INPUTS
- Technology infrastructure
- Training resources
- People (Individuals & Institutions)
- External funding

OUTPUTS
- Educators trained
- Community teams formed
- Free content developed
- New technology implemented

OUTCOMES
- Sustainable OER ecosystem
- Capacity
- Content
- Connections

Phase 1: Foundations → Phase 2: Scaling operations → Phase 3: Implementation

INPUTS
- Funding
- Staff

ACTIVITIES
- Develop integrated case plans
- Develop linkages with community service providers

OUTPUTS
- # of job placement plans developed
- # of offenders who are placed in jobs
- # of offenders who are still employed 12 months after release
- # of MOUS
- # of service providers

OUTCOMES
- Recidivism rate for program participants
- Percent of child support paid on time
- Percent of ex-prisoners not living in public assisted housing

Connections
Logic Model Components

• Situation/Priorities
  • Inputs
  • Outputs
• Outcomes
• Assumptions
• External Factors
Logic Model in Daily Activities

Get pills → Take pills → Feel better

Find food → Eat food → Feel better

A logic model for a family vacation -

- Family members
- Budget
- Car
- Camping equipment

Drive to state park → Set up camp → Cook, play, talk, laugh, hike → Family members learn about each other; family bonds; family has a good time
Logic Models Components

1. Situation
   - Priorities
   - P
   - S

2. Inputs
   - What we invest
     - Staff
     - Volunteers
     - Time
     - Money
     - Research base
     - Materials
     - Equipment
     - Technology
     - Partners
   - Conduct workshops, meetings
   - Deliver services
   - Develop products, curriculum, resources
   - Train
   - Provide counseling
   - Assess
   - Facilitate
   - Partner
   - Work with media

3. Outputs
   - Activities
   - Participation

4. Outcomes - Impact
   - Short Term
   - Medium Term
   - Long Term
   - What the short term results are
     - Learning
     - Awareness
     - Knowledge
     - Attitudes
     - Skills
     - Opinions
     - Aspirations
     - Motivations
   - What the medium term results are
     - Action
     - Behavior
     - Practice
     - Decision-making
     - Policies
     - Social Action
   - What the ultimate impact(s) is
     - Conditions
     - Social
     - Economic
     - Civic
     - Environmental

5. Assumptions

6. External Factors
Situation/Priorities

- First Step
  - State the problem
- Foundation for development
- Setting priorities
  - Influential factors
Example (UW-Extension)

Earth County in Western State has a variety of soil types and topography that affect soil erosion and farming practices. Half of the county's 400,000 acres is cropped, much of it in areas of rolling hills and light, sandy soils. These fine grain sands are carried easily away by wind or water action. Farmers can lose up to an average of 3 tons of soil annually due to runoff. This runoff leads to sedimentation, the accumulation of particles in a water body, which is one of the biggest contributors to the degradation of surface water in Earth County, according to a recent Department of Natural Resources survey. Two farming practices, buffer strips and conservation tillage, are effective in conserving soil and reducing the amount of sediment that runs off the land and into local waters.
Children of divorce face many challenges and stresses that are often unrecognized by their parents. Parents are often too engrossed in their own emotional needs to address the needs of their children during a divorce. Other children become victims of bitter contention between their mother and father. Because of these difficulties, the Bold County Circuit Court System mandates that parents in the process of divorcing attend a course on how to deal with their children during and after the divorce procedures.

Example: UW-Extension
Inputs

• Resources invested that allow us to achieve outputs
• Currently have to support effort
• Contributions made to effort
Outputs

Measurable, tangible, direct products or results

• Activities
  – “What we do”
    • Examples

• Participation
  – “Who we reach”
    • Examples

* Expressed in terms of the size &/or scope

* Frequently include quantities or existence of something new

Examples:
Number of workshops
Hours of service provided
Curriculum/curricula developed
Materials developed/distributed
Outcomes

• Express the results that are intended to be achieved
• Changes that occur/difference that is made
• “So what?”  
  – examples
### Changes in Learning, Action, Condition

#### SHORT TERM

*Learning: The knowledge parents & guardians learned from the literature & PSAs*

- Increased understanding among targeted parents of the importance of childhood immunization
- Increased knowledge among targeted parents of where to go to have their children immunized

#### INTERMEDIATE

*Action: The behaviors/actions parents and guardians take as a result of knowledge*

- Increased number of targeted parents who take their children to be immunized

#### LONG TERM

*Condition: The conditions that change as a result of those actions.*

- Increased number children of targeted parents who continue to receive up to date immunizations.
- Healthier children

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### Chain of Outcomes

- **Closer in time**
  - Easier to measure
  - More attributable to program

- **More distant in time**
  - Harder to measure
  - Less attributable to program
Chain of Outcomes

Short Term Outcomes
“Expect to See”

Intermediate Outcomes
“Want to See”

Long Term Outcomes
“Hope to See”
Outcome Statements

• Who/what, change/desired effect, in what, by when

• S.M.A.R.T.
  – Specific
  – Measureable
  – Attainable
  – Result-Oriented
  – Timed

<table>
<thead>
<tr>
<th>Who/what</th>
<th>Change/desired effect</th>
<th>In what</th>
<th>By when</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teenage youth aged 13-17 years attending camp</td>
<td>improve</td>
<td>their leadership skills</td>
<td>by the end of camp</td>
</tr>
<tr>
<td>Low-income families participating in the program</td>
<td>increase</td>
<td>their use of community services</td>
<td>within three months after the program finishes</td>
</tr>
<tr>
<td>County management board</td>
<td>implements</td>
<td>waste management plan</td>
<td>within one year of program start-up</td>
</tr>
</tbody>
</table>
## Outcome vs. Output

### Outputs
- **Activities**
  - Conduct workshops, meetings
  - Deliver services
  - Develop products, curriculum, resources
  - Train
  - Provide counseling
  - Assess
  - Facilitate
  - Partner
  - Work with media
- **Participation**

### Outcomes - Impact

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| Opinions | Social Action | }
Assumptions & External Factors

Assumptions
- Necessary, True
- Principles, beliefs, ideas we have about the project
- Currently exist

External Factors
- Little to no control
Linkages

- Model’s power
- “If-Then” statements
- Also, “but, why?”
Where Does Evaluation Fit in a Logic Model?

Integrated across entire model

Logic Model
- Resources
- Activities
- Outputs
- Outcomes

Evaluation Plans:
- Implementation
  - Activities
  - Outputs
- Outcomes
  - Outcomes
  - Indicators

Data Collection
- Method
- Effort
Where Does Evaluation Fit in a Logic Model?

• Logic model does not = Evaluation Model
  – describes initiative & expected achievements
  – Facilitates effective evaluation

• Evaluation
  – What worked, what didn’t & why, How can we make it better

Data Collection
- Surveys, Tests, Observations, peer reviews, photography

Sources of Information
- Existing data (logs, charts, records), program participants
Limitations of the Logic Model

• Only represents reality

• Focuses on expected outcomes

• Challenge of causal attribution

• Doesn’t address critical questions
Standards of Quality

• Meaningful

• Plausible

• Doable

• Testable
References


