Do I *REALLY* Need a Logic Model?

How logic models help identify program outcomes

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About Child Trends

Child Trends is a nonprofit, nonpartisan research center that improves the lives and prospects of children and youth by conducting high-quality research and sharing the resulting knowledge with practitioners and policymakers.

We . . .

1. take a whole child approach
2. study children in the real world
3. want children to flourish
4. value objectivity and rigor
5. pursue knowledge development and knowledge transfer

childtrends.org
Agenda

- Glossary of Terms
- Introduction to Logic Models
  - What is a Logic Model?
  - Why should you use a Logic Model?
- Components of a Logic Model
- Putting it all Together
- Let’s Get to Work!!!
Glossary of Terms
Repollo Caliente

aka, Hot Cabbage

When the music starts, pass the “repollo” around the room.

When the music stops, if you have the “repollo,” peel off the outermost piece of paper, and read it aloud to the group.

Repeat!!!
Glossary of Terms

• **Theory of Change**
  • Statement that broadly describes how an intervention program or model will lead to desired outcomes.
  • **Example:** We expect tutoring services to improve student grades, and, in turn, we expect improved grades to result in higher rates of high school graduation.
Glossary of Terms

- Theory of Change

- Logic Model
  - Diagram of the theory of how a program is supposed to work
  - A graphic depiction of relationships between activities and results
  - A picture of what you are doing, and what you are hoping to accomplish by doing it
Glossary of Terms

- Logic Model
- Theory of Change

**Inputs**

- Resources a program uses to achieve program objectives
- **Example:** staff, volunteers, equipment, curricula, money, facilities
- *Inputs* support *activities*
Glossary of Terms

- Logic Model
- Theory of Change
- Inputs
- Activities
- Outputs
- Outcomes
- Outcome Indicators

- The services the program provides to fulfill its mission
- **Example:** sheltering homeless families, educating public about child abuse, providing mentors for youth
- **Activities** result in **outputs**
Glossary of Terms

- Logic Model
- Theory of Change
- Inputs
- Activities
- **Outputs**
  - “Tangible” accomplishments as a result of activities, or products of a program’s activities
  - **Example:** number of meals provided, hours of training, brochures distributed, participants served
  - *Outputs* should produce desired *outcomes*
Glossary of Terms

- Logic Model
- Theory of Change
- Inputs
- Activities
- Outputs
- **Outcomes**
- Outcome Indicators

- Changes that occur or the difference that is made for participants during or after the program
- Relate to knowledge, skills, attitudes, values, behavior, condition or status
- **Example:** greater knowledge of nutritional needs, improved reading skills, greater financial stability
Glossary of Terms

- **Logic Model**: A visual representation of a program’s logic, showing the relationship between inputs, activities, outputs, and outcomes.
- **Theory of Change**: A narrative that describes how inputs lead to activities, which in turn lead to outputs, which in turn lead to outcomes.
- **Inputs**: Resources or factors that are necessary for the program to function.
- **Activities**: Actions taken by the program to achieve its goals.
- **Outputs**: Results of the program’s activities, measurable outputs that can be influenced by the activities.
- **Outcomes**: The desired results of the program, the intended and unintended changes occurring in the target population.
- **Outcome Indicators**: Information that tracks a program’s success on outcomes; tells how well the program is doing with respect to an outcome.
- **Describe observable, measurable characteristics or changes that represent achievement of an outcome**
- **Example**: # and % of newborns weighing at least 5.5 lbs. and scoring 7 or above on Apgar scale.
Introduction to Logic Models
What is a Logic Model?

- Simple representation of a program/service/organization
- Connects program services or activities to anticipated outputs and outcomes
- Dozens of frameworks/formats, but all contain at least 3 things:
  - Activities/Services
  - Outputs
  - Outcomes
What is a Logic Model?

**INPUTS** → **ACTIVITIES** → **OUTPUTS** → **OUTCOMES**

**Your Planned Work**
- What you are investing
- The work you are doing

**Your Intended Results**
- What you hope will happen as a result of your work
**Example**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input 1</td>
<td></td>
<td>Output 1</td>
<td>Outcome 1</td>
</tr>
<tr>
<td>Input 2</td>
<td>Activity 1</td>
<td>Output 2</td>
<td>Outcome 2</td>
</tr>
<tr>
<td>Input 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input 4</td>
<td>Activity 2</td>
<td>Output 3</td>
<td>Outcome 3</td>
</tr>
<tr>
<td>Input 5</td>
<td>Activity 3</td>
<td>Output 4</td>
<td>Outcome 4</td>
</tr>
<tr>
<td>Input 6</td>
<td></td>
<td>Output 5</td>
<td>Outcome 5</td>
</tr>
</tbody>
</table>

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Example

Goal: Increase academic performance of students in mathematics

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Tutoring staff</td>
<td>• After-school tutoring sessions on mathematics</td>
<td>• # of students tutored</td>
<td>• % of students maintaining or improving school attendance</td>
</tr>
<tr>
<td>• Curriculum</td>
<td></td>
<td>• # of tutoring sessions offered</td>
<td>• % of students increasing math grade</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• # of minutes of tutoring each student receives</td>
<td>• % of students with “A”s in math maintain “A”</td>
</tr>
</tbody>
</table>

Example:

- Inputs:
  - Tutoring staff
  - Curriculum

- Activities:
  - After-school tutoring sessions on mathematics

- Outputs:
  - # of students tutored
  - # of tutoring sessions offered
  - # of minutes of tutoring each student receives

- Outcomes:
  - Short-term
    - % of students maintaining or improving school attendance
  - Intermediate
    - % of students increasing math grade
    - % of students with “A”s in math maintain “A”
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Example

**Logic Model for CASA (Nebraska)**

**Target population:** Children (and youth) who have been abused and are now in out-of-home placement (foster care). *(Determined through a needs assessment.)*

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Throughputs (Activities)</th>
<th>Outputs</th>
<th>Short-Term Outcomes</th>
<th>Long-Term Outcomes</th>
</tr>
</thead>
</table>
| • Staff | CASA staff:  
  • Recruit, screen, train (pre-service, continuing education), and supervise volunteers  
  • Communicate with systems impacting the child  
  • Complete fundraising and administrative responsibilities  
  • Collaborate with Board of Directors  
  • Engage with the community | Number of:  
  • Training sessions completed  
  • Volunteers recruited, screened, trained, and supervised  
  • Continuing education hours completed  
  • Grants and donations received  
  • Community events and contacts | Children:  
  • Have an individual who is stable/consistent in their lives  
  • Have fewer school and placement changes  
  • Receive needed services  
  • (Youth) have increased independent living skills  
  • Are not abused/neglected while in out-of-home placement (foster care)  
  • Court:  
  • Receives more information on behalf of the child  
  • Receives recommendations in best interest of the youth  
  • Increase in communication and collaboration between systems impacting the child  
  • Increased community awareness | Children spend less time in out-of-home placements  
  • Children are in permanent placements  
  • Children have healthy, long-term relationships  
  • Children are safe from child abuse and neglect  
  • Children are thriving |
| • Funds | CASA volunteers:  
  • Monitor – facilitate – advocate - Investigate  
  • Visit and build relationship with child  
  • Communicate with child’s family, teachers, therapists, foster family, and others  
  • Maintain and review records  
  • Attend court hearings  
  • Write and submit court reports; make recommendations in child’s best interest  
  • Stay with case until child is in a permanent placement | Number of:  
  • Hours volunteered  
  • Miles driven  
  • Cases served  
  • Contacts with child and others  
  • Court hearings attended  
  • Court reports written, recommendations made and accepted | |

*Determined through:*

- Cost-benefit analysis
- Process evaluation
- Outcome evaluation

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Why should you use a Logic Model?

• Sets up a clear **path to success** for achieving goals.
• Provides a **visual test** of whether or not inputs, activities, and outputs line up with outcomes.
• Helps get everyone on the **same page**.
• Helps **communicate** program goals and outcomes to stakeholders and funders.
• Facilitates performance **management** and program **evaluation**.
Path to success for achieving goals

- Clarifies your thinking about the program and how it was originally intended to work.
- Guides prioritization and allocation of resources.
Provides a visual test

- Serves as the basis to determine whether planned actions are likely to lead to the desired outcomes.
- Shows what will result from an initiative or program.
- Depicts actions/causes expected to lead to desired results.
Gets everyone on the same page

• Staff stay better-focused on outcomes, guides and helps focus work.
• Keeps underlying program assumptions at the forefront of staff members’ minds.
• Becomes a common language and reference point for everyone involved.

Seriously? **Nobody** remembers the theory of change behind launching a 24-7 live hamster webcam??!
Communication with stakeholders and funders
Facilitates program evaluation

- Logic models are the cornerstone of an effective evaluation.
- Provides a thorough understanding of the program being evaluated.
- Helps ensure that your evaluation will yield relevant and useful information.
- Allows programs to prioritize the most critical items for tracking and reporting.
- Focuses attention of management on the most important connections between actions and results.
Theory of Change
Theory of Change

• It is a way to broadly describe how an intervention program or model will lead to desired outcomes.

• It answers the questions:
  • What is the desired change?
  • What activities or services are facilitating this change?
  • What key indicators of change might produce this change?
Theory of Change

We expect tutoring services to improve student grades, and, in turn, we expect improved grades to result in higher rates of high school graduation.

• Helps one to examine the underlying assumptions about why the program is expected to work.
• Helps one to examine whether desired changes in outcomes are achievable.
• Is a great starting point for developing or revising a logic model!
Think about your program...

Does your program have a theory of change?

- What is the desired change?
- What are the intermediate outcomes?
- What activities or services are facilitating this change?
- Why do you expect to see these changes?
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Inputs

- Resources available to direct toward the work:

  - What you put in to your program.
  - Don’t forget in-kind contributions!

Inputs:

- HUMAN
- FINANCIAL
- COMMUNITY RESOURCES
- ORGANIZATIONS
## Inputs

<table>
<thead>
<tr>
<th>Not specific enough</th>
<th>Too specific</th>
<th>Just right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home-buying resources</td>
<td>W2 forms</td>
<td>Clear financial records</td>
</tr>
<tr>
<td></td>
<td>1099s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tax returns</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pay stubs</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>1 project lead @ 40 hrs/wk</td>
<td>3 full-time staff</td>
</tr>
<tr>
<td></td>
<td>2 project associates @ 40 hrs/wk</td>
<td>1 part-time staff</td>
</tr>
<tr>
<td></td>
<td>1 part-time support person @ 20 hrs/wk</td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>25 paint brushes</td>
<td>Art supplies</td>
</tr>
<tr>
<td></td>
<td>50 bottles of pain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>250 sheets of paper</td>
<td></td>
</tr>
</tbody>
</table>
Think about your program…

What are your program’s **inputs**?

Think about:
- Human resources...
- Financial resources...
- Community resources...
- In-kind donations/services...
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Activities

• What you will do with program resources to achieve program outcomes/goals.

- DEVELOPING PRODUCTS
- PROVIDING SERVICES
- ENGAGING IN POLICY ADVOCACY
- BUILDING INFRASTRUCTURE

• Actions needed to implement your program.
• It can be helpful to group related activities together.
## Activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>Not detailed enough</th>
<th>Too detailed</th>
<th>Just right</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hire real-estate agent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Drive around the city</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Conduct Google search</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Interview friends and family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Choose three books from local library about neighborhoods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Read three books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hire a driver to tour neighborhoods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Try neighborhood restaurants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Set up review meeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Research local neighborhoods – amenities and prices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hire real-estate agent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tour priority neighborhoods</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Think about your program...

What are your program’s **activities**?

Think about:
- Products you develop...
- Services you provide...
- Advocacy efforts...
- Training you provide...
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Outputs

• Direct products of program activities.
• Show what you do and who you serve.
• Should be linked to activities and inputs/resources.
• **Lead** to a desired benefit or change for participants...
  • ...but they are not the changes you expect the program to produce.
• They express **quantity**, where outcomes express quality.
Outputs

Outputs **DO:**
- Tell you about how well your program was implemented
- For example, they indicate whether a program:
  - delivered the intended number of sessions
  - reached its intended population
  - resulted in adequate participation levels

Outputs **DO NOT:**
- Tell you if participants benefited from your program
- Serve as indicators of program success or effectiveness
Outputs also help you determine if...

- more services lead to more/better outcomes.
- there is a ‘minimum’ amount of service needed to improve outcomes.
- too many services actually lead to decreased or negative outcomes.
Think about your program...

What **outputs** does your program produce?

Think about:
• Deliverables...
• Units of service...
• Products...
Are they:
• Measureable?
• Tangible?
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Outcomes

• The results your program intends to achieve if implemented as planned.
• Answer the questions:
  
  What difference does the program make?

  What does success look like for the program?

• Should be phrased in terms of change – in learning, action, or condition.
• Not only should they be measurable, you need to make sure you have the information available to measure it!
Do you need to measure outcomes for everything you do?

No!

• You should measure outcomes for your activities that provide a consistent set of programming or services for participants.
• Measuring just outputs is OK for some activities or programmatic approaches.
• Activities or services that are only used once by people likely will NOT produce outcomes.
• Can always start with a couple of outcomes and then expand.
Since you can’t measure everything, consider:

<table>
<thead>
<tr>
<th>Important to achieve?</th>
<th>Which are the most closely related to the core business of the program?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaningful?</td>
<td>Is the change or benefit something that makes a real difference for the participants?</td>
</tr>
<tr>
<td>Useful?</td>
<td>Which will provide the best information for decision-making or program improvement?</td>
</tr>
<tr>
<td>Reasonable?</td>
<td>Which can the program be expected to influence in a non-trivial way? Which can the program be fairly held “accountable” for?</td>
</tr>
<tr>
<td>Realistic?</td>
<td>Which are most likely achievable within the resources available? Which are likely achievable within the designated reporting period?</td>
</tr>
</tbody>
</table>
Activity
## Output or Outcome?

<table>
<thead>
<tr>
<th></th>
<th>Output</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents attend meetings.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children play in clean, safe areas.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Target audiences identify and report suspected abuse and neglect.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Teen mothers graduate from high school.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children are enrolled in child care.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Posters placed in stores and buses</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Pregnant teens attend program.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Crime in participating blocks decreases</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Volunteers complete training.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Volunteers meet with participants once a month.</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Think about your program…

What are your program’s desired **outcomes**?

Think about changes you would like to see in:
- Behavior
- Knowledge
- Attitude
- Self-Concept
- Situation
Outcome Indicators
Outcome Indicators

• Help you know whether or not an outcome has been achieved.
• They are specific observable, measurable characteristics or changes that will represent achievement of an outcome.
• Also described as specific statistic(s) the program will calculate to summarize its level of achievement toward a goal or outcome.
• Some outcomes are easy to observe and measure, others are not concrete enough to measure directly.

For example...
## Outcome Indicators

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teens graduate from high school</td>
<td>Of teens enrolled in the program, the number and percent that graduate from high school over a four-year period.</td>
</tr>
<tr>
<td>Students’ academic performance improves</td>
<td>Number and percent of participants who earn better grades in the grading period following completion of the program than in the grading period immediately preceding enrollment in the program.</td>
</tr>
<tr>
<td>Teens deliver healthy babies</td>
<td>Number and percent of newborns weighing at least 5.5 pounds and scoring 7 or above on Apgar scale.</td>
</tr>
<tr>
<td>Family is reunited when possible; otherwise youth are in stable alternative housing</td>
<td>Number and percent of youth who return home. Number and percent of youth placed in alternative living arrangements who are in that arrangement 6 months later unless they have been reunified or emancipated.</td>
</tr>
</tbody>
</table>
## Outcome Indicators

- Make sure you have a way to gather the necessary information for the indicators.
- One helpful way is to make a data collection table:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Indicator</th>
<th>Data Source</th>
<th>Data Collection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- You can refine your indicators as you learn about your program.
- Collect **individual data**, on individual participants, but report the data in aggregate.
Think about your program...

What **outcome indicators** do you need to define?

- Are they observable?
- Do you have **access** to the information you need to collect the information?
- Do you have the **capacity** to collect the information?
Putting it all together
Putting it all together...

In order to accomplish our set of activities, we will need the following:

In order to address our problem, we will conduct the following activities:

We expect that once completed or underway, these activities will produce the following evidence of service delivery:

We expect that if completed or ongoing, these activities will lead to the following changes:

INPUTS ➔ ACTIVITIES ➔ OUTPUTS ➔ OUTCOMES
Activity
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**INPUTS**
- Child care licensing is acquired and maintained
- Agency Director w/ MA in child development
- 3 full-time child care workers
- Facilities and equipment for center

**ACTIVITIES**
- Developmental child care is provided on school grounds for children of teen mothers attending high school

**OUTPUTS**
- Children are enrolled in child care

**OUTCOMES**
- **Initial**
  - Children are present at child care regularly
  - Teen mothers attend school regularly
- **Long-Term**
  - Children exhibit progress toward age-appropriate motor, verbal, and social skills
  - Teen mothers graduate from high school
Let’s get to work!
Resources

• Kellogg Foundation – Logic Model Development Guide

• United Way – Measuring Program Outcomes: A Practical Approach
  http://www.unitedwaystore.com/

• Innovation Network – Logic Model Workbook

• Leap of Reason: Managing Outcomes in an Era of Scarcity
  http://www.vppartners.org/leapofreason/overview
Program Evaluation and Performance Measurement

- **Outcomes for Success**

- **Kellogg Foundation – Evaluation Handbook**

- **Leap of Reason: Managing Outcomes in an Era of Scarcity**
  [http://www.vppartners.org/leapofreason/overview](http://www.vppartners.org/leapofreason/overview)
Contact Information

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