

DEVELOPING LOGIC MODELS

Leading for Change 2014: Diversity Practices in Higher Education Conference

Center for Youth and Communities, Heller School, Brandeis University

May 2014

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Overview

Developing and using a logic model is an effective method for planning a program or initiative and charting its progress. A logic model shows the theory and assumptions underlying a program and links these with short and long-term outcomes and program activities. It is a picture of how a program is expected to work and how desired outcomes are to be achieved. A logic model can also serve as an excellent education and management tool as well as a platform for self-evaluation and continuous improvement.

The approach used in this document is drawn from the *W.K. Kellogg Foundation Evaluation Handbook*.¹ Other approaches to logic modeling, including different terms and somewhat different processes, are included in the Resources section.

Introducing Logic Models and the Benefits of the Process and the Product

A logic model is a picture of how your initiative will work: what you will do (strategies/activities), with whom, why, and with what result. It is also an opportunity to clarify your assumptions about what you are doing and why. A logic model may also be called a theory of change.

A logic model should include a *logical* chain of activities and outcomes – “if we do X, then Y should happen.” For example: *If diversity and inclusion are infused in new student orientation, students will be more likely to expect and contribute to a more inclusive climate.*

The logic model asks:

- What is the problem to be addressed?
- Who will be served through your initiative?
- What are your assumptions about how and why your initiative will work?
- What strategies/activities will you use?
- What outcomes do you expect?
- How will you measure success?
- What long-term impacts do you hope to achieve?

¹Susan P. Curnan and Lisa LaCava (eds.) (2004). <http://cyc.brandeis.edu/pdfs/reports/EvaluationHandbook.pdf>

Benefits of the *process* of creating a logic model:

- Clarifies thinking and uncovers different understandings about what you are doing and why.
- Enables you to think systematically about what your initiative is trying to accomplish and the steps you will take to reach your goals.
- Makes it easier to identify gaps and avoid mismatches across categories.
- May lead to consideration of new ideas.
- Helps focus complex work.
- Helps decide what outcomes are important to track – a starting point for evaluation.
- Creates shared understanding and ownership and thus builds partnership and improves communication.

Benefits of having a logic model *product*:

- Aids in planning, implementation, and management.
- Shows cause-and-effect relationships between strategies and outcomes – especially important in complex initiatives when there are other influences on the outcomes you want to achieve. A well-connected logic model can help you see whether your initiative is having an impact.
- Makes it easy to share a project description with others.
- Supports accountability, evaluation, reporting, and replication.

Steps to Creating a Logic Model

Following is a guide to the key elements of the logic model approach covered in this document:

| Name of Initiative | | | | | |
|---|--|---|---|---|---|
| Problem Statement: What is the problem the initiative will address? | | | | | |
| For Whom | Assumptions | Strategies/ Activities | Outcomes | Measures of Success | Long-Term Impacts |
| Target group(s) for the initiative | What you know, think, and/or believe about what's needed and will work | Activities needed to achieve desired outcomes | Reasonably measurable year-by-year changes in policies, practices, or target group(s) | Information needed to show whether outcomes have been achieved and initiative is successful | Ultimate or long-term outcomes for initiative |

The elements in the chart above combine to produce a guide for program development.

The following chart shows an effective sequence for building your logic model (although the process overall is likely to be more iterative than linear).

| Name of Initiative | | | | | |
|--|--|---|--|---|--|
| Problem Statement: What is the problem the initiative will address? <u>1</u> | | | | | |
| For Whom | Assumptions | Strategies/ Activities | Outcomes | Measures of Success | Long-Term Impacts |
| Target group(s) for the initiative | What you know, think, and/or believe about what's needed and will work | Activities needed to achieve desired outcomes | Reasonably measurable year-by-year changes in policies, practices or target group(s) | Information needed to show whether outcomes have been achieved and initiative is successful | Ultimate outcomes or long-term outcomes for initiative |
| <u>2</u> | <u>7</u> | <u>5</u> | <u>4</u> | <u>6</u> | <u>3</u> |

First, bring key stakeholders together; then:

1. Define the **problem** you will address.
2. Determine the **individuals or group(s) you will target**.
3. State expected **long-term impacts**. Work backwards to the next step.
4. Decide on **outcomes** you want to achieve.
5. Ask, "If we want to achieve these outcomes, what **strategies** should we use?"
6. Ask, "If were **successful**, how will we know it?"
7. Ask, "What **assumptions** underlie our approach?" Beliefs about how and why change happens are usually easier to articulate after the rest of the logic model is largely filled in. Stakeholders may hold different beliefs about what is necessary or what will work.

Strategies vs. Outcomes vs. Measures of Success: Examples

Strategies are what you DO and **outcomes** are what CHANGES because of what you do. **Measures of success** are evidence that the desired change has occurred. Remember: not everything that is measurable is meaningful; and not everything that is meaningful is easily measurable. There may be tradeoffs between obtaining the most meaningful results and collecting data at reasonable cost and with reasonable effort.

| STRATEGIES → | OUTCOMES → | MEASURES OF SUCCESS |
|---|--|---|
| What you do | What changes | How you know |
| Increase professional development opportunities to help faculty apply best practices in inclusive teaching. | More faculty members apply inclusive teaching principles systematically and explicitly; students from all backgrounds have experiences that are more positive. | Faculty report applying inclusive teaching principles more often. Students from all backgrounds report higher levels of comfort in their classes. |
| Collect and analyze data (including from students) regarding efforts to recruit and retain a more diverse student body. | Revise student recruitment and retention strategies based on lessons learned from data analysis. | Diversity of applicants and enrolled students increases. |
| Analyze diversity of campus workforce, retention rates, and reasons for voluntary/involuntary staff/faculty terminations. | Revise staff recruitment and retention/support strategies based on lessons learned from data analysis. | Diversity of faculty/staff increases and retention rates increase. |

Questions to ask as you work on your logic model²

- Will the planned strategies really lead to the expected outcomes?
- Are all target groups, strategies, and outcomes included?
- Do you have enough resources to do what you're planning?
- Does each outcome have a strategy that will lead to it?
- Does each strategy lead to one or more outcomes?
- Are the outcomes really outcomes, not strategies/activities?
- Are the outcomes reasonably measurable?
- Are all stakeholders in agreement about the logic model?

Final Hints

- Focus on being outcome-driven, not activity-driven. Start with outcomes.
- The elements (assumptions, strategies and activities, and outcomes) should be logically aligned.
- Revisit and revise periodically. These are living documents. Some strategies will work; others may not. Initial assumptions may be incorrect.
- Aim for 1-2 pages (but it's acceptable to develop a multiple-page logic model at first).
- You can use a logic model to develop more detailed action and/or strategic plans.
- The process is as important as the product: Engage all stakeholders in developing the logic model and use it as an education tool to build awareness and deepen understanding.

²Adapted from N. L. Porteous, B. J. Sheldrick, and P. J. Stewart (2002). Introducing program teams to logic models: facilitating the learning process. *The Canadian Journal of Program Evaluation*, Vol. 17, No. 3, pp. 113-141.

Recommended Resources Regarding Logic Models

The following websites offer further information on approaches to developing and using logic models.

We have already referred (footnote 1) to the following:

W.K. Kellogg Foundation Evaluation Handbook, Susan P. Curnan and Lisa LaCava (eds.) (2004).

<http://cyc.brandeis.edu/pdfs/reports/EvaluationHandbook.pdf>

An online tutorial about developing a logic model using a different framework and terms than are used in this document:

Greg, Erik. Usable Knowledge LLC. <http://www.usablellc.net>

A detailed guide that also uses a different framework and terms and provides helpful advice:

Innovation Network, "Logic Model Workbook."

www.innonet.org/client_docs/File/logic_model_workbook.pdf

An article about logic model development with a complex but well-thought-out framework:

Renault, V., Fawcett, S., Milstein, B., Chapel, T. The Community Tool Box. Developing a Logic Model or Theory of Change.

<http://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/logic-model-development/main>

More detailed reading about developing logic models:

Creating Program Logic Models (from Knowlton, L. W. and Phillips, C.C. (2013). *The Logic Model Guidebook: Better Strategies for Great Results*. Sage Publications.)

http://www.sagepub.com/upm-data/23938_Chapter_3_Creating_Program_Logic_Models.pdf

Resources from the University of Wisconsin-Extension, Program Development and Evaluation Unit:

- <http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html>
- <http://bhpr.hrsa.gov/grants/areahealtheducationcenters/ta/trainings/materials/ta206wilmguideslides.pdf>