



Harvard Family
Research Project



Learning from Logic Models in Out-of-School Time

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2002

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INTRODUCTION

What is a Logic Model?

Logic models are a concise way to show how a program is designed and will make a difference for a program's participants and community.

On one sheet of paper, a logic model summarizes the key elements of your program, reveals the rationale behind your approach, articulates your intended outcomes and how they can be measured, and shows the cause-and-effect relationships between your program and its intended outcomes.

Why Develop One?

Logic models have numerous uses and benefits. A logic model can be used for:

Strategic and Program Planning – Developing a logic model is a form of strategic planning. The process forces you to identify your vision, the rationale behind your program, and how your program will work. This process is also a good way to get a variety of program stakeholders involved in program planning and to build consensus on the program's design and operations.

Effective Communications – Logic models allow you to provide a snapshot view of your program and intended outcomes to funders, staff, policymakers, the media, or other colleagues. They are particularly useful for funding proposals as a way to show that what you are doing is strategic, and that you have a plan for being accountable.

Evaluation Planning – A logic model provides the basic framework for an evaluation. It identifies the outcomes you are aiming for—based on your program's design—and puts those outcomes in measurable terms.

Continuous Learning and Improvement – A completed logic model provides a point of reference against which progress towards achievement of desired outcomes can be measured on an ongoing basis.

What Does a Logic Model Look Like?

There is no one “right” way to construct a logic model. There are many approaches and a logic model can take on many forms. One possible approach is presented on the next two pages. The next page offers a generic logic model and explains its components. The logic model on page three illustrates what some of those components might look like for out-of-school time (OST) programs.

LOGIC MODEL

Guide to Terms and Definitions

| ELEMENTS OF THE MODEL “The Program” | AS MEASURED BY “The Outcomes” |
|--|--|
| <p>DESIRED RESULTS</p> <p>The overall long-term vision or goal for children, adults, families, or communities. An out-of-school time program <i>alone</i> usually cannot accomplish the results, but should contribute to them.</p> <p>Results usually cannot be measured directly, but are composites of multiple measures.</p> | <p>INDICATORS</p> <p>Measures, for which data exist, that quantify and track community-wide progress toward results. They require <i>community-wide effort</i> to move and reflect substantial changes across a community.</p> <p>Indicators can:</p> <ul style="list-style-type: none"> -Change over a few years or take several decades to change -Reflect changes in people, systems, or policies -Be specific rates or numbers <p><i>Ultimate Indicators</i> Measures of <i>long-term</i> community-wide progress toward desired results. They usually require significant investment and time to change.</p> <p><i>Interim Indicators</i> Measures of <i>short-term or interim</i> community-wide progress toward desired results.</p> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> <p style="text-align: center;">Require community-wide effort to affect</p> </div> |
| <p>MOTIVATING CONDITIONS AND CAUSES</p> <p>The conditions, causes, circumstances, factors, issues, etc. that need to change in order to achieve the results. The program will address <i>some</i> of these conditions or causes, but not all of them.</p> | |
| <p>PROGRAM STRATEGIES</p> <p>The program’s broad approaches or general action plan. The strategies tackle a <i>subset</i> of the above motivating conditions and causes.</p> | <p>PROGRAM PERFORMANCE MEASURES</p> <p>Measures of productivity and changes that come about as a result of the out-of-school time program’s work. As a result, they typically reflect “smaller” changes than indicators.</p> <p>They are measures of what the program’s strategies and activities (to the left) accomplish.</p> <p><i>Measures of Effect</i> Changes in the target populations (i.e., children in the out-of-school time program) that come about as a result of program strategies and activities.</p> <p>Measures of effect often reflect changes in knowledge, skills, attitude, or behavior.</p> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"> <p style="text-align: center;">Can be affected by the program</p> </div> <p><i>Measures of Effort</i> Direct outputs of program activities—what and how much the program accomplishes. Measures of effort can include the #s of classes, materials developed, trainings offered, etc. or include measures of customer satisfaction.</p> |
| <p>PROGRAM ACTIVITIES</p> <p>The specific set of actions, interventions, or services that the program will undertake to implement the above strategies.</p> <p>Each activity will likely change only one or a few of the conditions and causes that need to change in order to reach the desired result. Each activity may affect only a subset of the target population.</p> | |

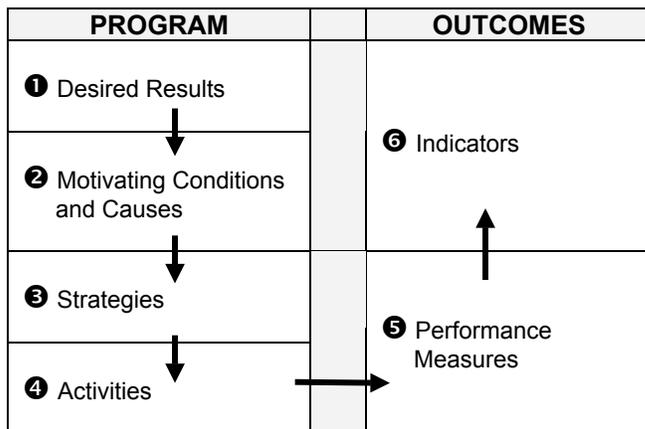
OUT-OF-SCHOOL TIME (OST) PROGRAMS

Examples of Logic Model Components

| ELEMENTS OF THE MODEL "The Program" | AS MEASURED BY "The Outcomes" |
|--|--|
| <p>DESIRED RESULTS</p> <p>Improve the physical, social, and emotional well being of children.</p> <p>Improve children's academic development and performance.</p> | <p>INDICATORS</p> <p><i>Ultimate Indicators</i></p> <ul style="list-style-type: none"> - Reduced substance use rates among teens - Reduced teen pregnancy rates - Reduced #s of violent acts among adolescents and teens - Reduced dropout rates - Increased percentage of students graduating from high school - Increased percentage of students attending college <div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: 10px auto;"> <p>Require community-wide effort to affect</p> </div> <p><i>Interim Indicators</i></p> <ul style="list-style-type: none"> - Improved test scores in reading, math, or science - Reduced #s of anti-social behaviors or behavior problems - Decreased student suspensions - Improved grades |
| <p>MOTIVATING CONDITIONS AND CAUSES</p> <ul style="list-style-type: none"> - Many parents working outside of the home - Children with unstructured and unsupervised time in the after school hours - Low academic performance among low-income children - Lack of positive adult-youth relationships - Children at greater risk for involvement in crime and substance abuse in the hours after school - Television as the most common activity for children after school | <p>PROGRAM PERFORMANCE MEASURES</p> <p><i>Measures of Effect</i></p> <ul style="list-style-type: none"> - Development of emotionally supportive relationships with adults - Increased emotional adjustment - Increased social competence - Higher self-esteem and confidence - Improved study habits - Higher numbers of honors or awards received - Improved peer relationships - Improved attitudes toward school - Improved school attendance/decreased truancy <div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: 10px auto;"> <p>Can be affected by the OST program</p> </div> <p><i>Measures of Effort</i></p> <ul style="list-style-type: none"> - # of children served in the OST program and participant demographics - # of classes/sessions/trainings held - # and type of products developed - Measures of program cost-effectiveness - Parent and child satisfaction rates with the OST program |
| <p>OST PROGRAM STRATEGIES</p> <ul style="list-style-type: none"> - Youth development and leadership - Academic enrichment - Curriculum development and enrichment - Collaboration | <p>OST PROGRAM ACTIVITIES</p> <ul style="list-style-type: none"> - Homework help and tutoring - Mentoring - Rap sessions - Arts activities - Recreation activities - Technology training - Literacy activities - Career counseling and development - Community service or work projects - Intergenerational activities - Conflict resolution training |

LOGIC MODEL ELEMENTS AND DEVELOPMENT

Developing the logic model essentially means filling out its elements or boxes with details that are based on your OST program. While there is no “correct” order in which to do this, it is suggested that you start with the left side or column of the logic model, and move counterclockwise, as represented in the figure below.



Step One: Describe the OST Program

The program side of the logic model has four elements. Use organizational documents you already have to help you. Useful materials may include strategic planning documents, mission statements, grant proposals, work plans, recruitment announcements, brochures, or training materials.

1 Desired Results

The logic model starts in the upper left-hand box with the program’s desired results or vision. Ask yourself: What is my long-term vision or goal for children, adults, or families in my community, or for my community as a whole? Use your mission statement as an aid. State the answer in one or two sentences. Keep in mind that an OST program *alone* usually cannot accomplish the desired results, but it should contribute to them (*e.g., improve children’s academic development and performance*).

2 Motivating Conditions and Causes

Next think about the reasons your OST program was created. Ask yourself: Why and how do I know my community needs an OST program? What are the factors, issues, or problems that my program is trying to improve or eliminate? Community needs assessments, data and research on the issues your program addresses, and lessons learned about what works may be helpful aids (*e.g., children with unstructured and unsupervised time in the after school hours, low academic performance among low-income children*).

③ Program Strategies

Strategies are the broad approaches that your OST program uses to affect the conditions or causes behind your program's existence. They are the general methods or processes you use to achieve your desired results or vision. Ask yourself: What are the broad categories of services or approaches that my program provides? Strategies are higher-level categories than activities, which are described below. Grant proposals may be useful aids for identifying strategies (*e.g., youth development and leadership, academic enrichment*).

④ Activities

Activities are the individual services or interventions your program uses to implement your strategies. Ask yourself: On a day-to-day basis, what do staff in my organization do? What services do we provide? Work plans may be useful for identifying this list (*e.g., homework help and tutoring, mentoring, rap sessions*).

Step Two: Identify the Outcomes

Once you describe your program, the next step is to specify the intended outcomes your program is striving for. Outcomes are defined here as the *measurable* results of your program. This part of the logic model will force you not only to identify what the results of your program are, but also how you will measure them. Use the elements of the logic model that you have just completed to describe your program as a reference as you go through this process. Remember that what you are doing in your program should *drive* how you assess it.

⑤ Performance Measures

Performance measures assess your program's progress on the implementation of your *strategies and activities*. They assess the results of your OST program's service delivery. Ask yourself: In the work that my program does, what do we hope to directly affect? What results are we willing to be directly accountable for producing? What can we realistically accomplish?

There are two types of performance measures:

Measures of Effort – Also commonly known as outputs, these are measures of the products and services generated by program strategies and activities. Ask yourself: What does my program generate (*e.g., publications, training materials*), what levels of activity do we produce (*e.g., the number of children served or products developed*), and what will measure the quality of our services (*e.g., customer satisfaction*)? Measures of effort assess how much you did, but do little in terms of explaining how well you did it or how well your program ultimately worked for the target population you are working with. These are the easiest of all the evaluation measures to identify and track (*e.g., number of children served in the OST program and participant demographics, number of classes/sessions/trainings held*).

Measures of Effect – These are changes in knowledge, skills, attitudes, or behaviors in your target population. Ask yourself: How will I know that the children or families I work with in my OST program are better off? What changes do I expect to result from the strategies and activities my program provides? Remember that measures of effect reflect changes that your program acting alone expects to produce (e.g., *increased social competence, higher self-esteem and confidence, improved study habits*).

6 Indicators

Indicators are measurable elements of the OST program's *desired results or vision* that reflect substantial changes in people, policies, or systems across an entire community. The OST program acting alone usually cannot achieve changes in indicators. Usually they require efforts from other programs or institutions that are also working toward similar results.

The distinction between indicators and performance measures is important. Remember that *indicators take a whole community to affect*, not just the OST program. This distinction helps to lay out what is realistic given the resources programs have and the limited time they have available with children or families.

For example, academic outcomes are a hot button issue for OST programs. The logic model allows you to make academic outcomes one of the indicators to be tracked. But, at the same time, doing so makes the point that while your OST program is expected to have an impact on academic achievement, the relationship is an indirect one since academic achievement is influenced by a number of factors, programs, and individuals—not just your program. It makes you accountable only for what you can reasonably expect to affect.

Indicators can be expected to change in the short-term or take many years to change. There are two types of indicators:

Interim Indicators

These are measures of *short-term* community-wide progress toward your program's desired results. They reflect the status of community-wide populations in the short-term. Ask yourself: If my program is successful, what changes do I expect to see in my community in the next few years (e.g., *improved test scores in reading, math, or science, reduced #s of anti-social behaviors or behavior problems, decreased student suspensions*)?

Ultimate Indicators

These are measures of *long-term* community-wide progress toward your program's desired results. They usually require significant resource investments to affect. Ask yourself: In the long-term, how will I know if my program's desired results have been achieved? Acting in concert with schools, parents, and other organizations, what do we expect to achieve in our community? The performance measures and interim indicators you have already identified should contribute to movement on the ultimate indicators (e.g., *reduced substance use rates among teens, reduced dropout rates, reduced teen pregnancy rates*).

Keep in mind that not all indicators are created equal. While you can likely generate a long list of possible indicators, some of them will make more sense to track than others. For example, some will require fewer resources. Consider these questions as you choose your indicators.¹

- Is the indicator relevant—does it enable you to know about the expected result?
- Is the indicator defined and data collected in the same way over time?
- Are data available?
- Will the indicator provide sufficient information about a condition or result to convince both supporters and skeptics?
- Is the indicator quantitative?

Step Three: Plan to Evaluate and Learn From the Data

The primary purpose of this brief is to develop a logic model that helps you describe your OST program and identify outcomes and measures that will help you assess your progress and results (i.e., steps one and two). This third step is offered briefly to make the point that the next step is to move forward with the evaluation in terms of putting plans in place to collect data on the measures you've identified and to use that data and the logic model for learning. The figure on the next page identifies four additional elements toward that end that can be added to the logic model.

7 Data Sources and Methods

The sources for the data needed to track indicators and performance measures. Ask yourself: Now that I have identified my measures, how will I get the data needed in the most resource-efficient way? If you used the criterion that data should already be available for the indicators you have chosen, then you should already know their data sources and how often they are available. However, you also need to determine how often to report out that information and how and who will get it. Performance measures will likely require additional data collection that either you or your evaluator conducts. Some of that information, such as the measures of effort, you can probably track on your own. However, you may need to use an external evaluator to collect data on the measures of effect (*e.g., sources: standardized testing, state or local government databases; methods: surveys, focus groups, interviews*).

8 Evaluation Questions

The questions you want to have answered by the data or decisions that you want to make based on your data. You should be able to make decisions based on your indicators and performance measures. Ask yourself: What strategic decisions can I make based on the information that will be generated? What consequences should be tied to achievement for good or bad performance? (*E.g., are the indicators moving and, if not, does that mean the OST program needs to be modified?*)

¹ Horsch, K. (1997). *Indicators: Definition and use in a results-based accountability system*. Cambridge, MA: Harvard Family Research Project.

9 Stakeholders

The individuals who have a vested interest in the OST program and need to know the answers to the evaluation questions and to be involved in learning from the data being collected. Ask yourself: Who is interested in or will benefit from knowing my program’s progress on its indicators and performance measures (e.g., board members, funders, collaborators, program participants, community members, and other individuals or organizations)?

10 Mechanisms for Learning

The periodic or regular opportunities that exist for pulling together and reporting out the data being collected, and bringing together stakeholders to learn from and make decisions based on the data. Ask yourself: What opportunities exist or need to be created to focus on and learn from the evaluation (e.g., staff, stakeholder, or board meetings, regular evaluation reports, strategic retreats)?

**LOGIC MODEL FOR LEARNING
Adding Additional Evaluation Components**

| PROGRAM | | OUTCOMES | EVALUATION AND LEARNING |
|----------------------------------|---|----------------------|---|
| DESIRED RESULTS | ↔ | INDICATORS | 9 DATA SOURCES AND METHODS Where the data needed to track the indicators and performance measures will come from. |
| MOTIVATING CONDITIONS AND CAUSES | | | 7 EVALUATION QUESTIONS Questions, based on indicator data and movement that will determine whether the strategy needs to be modified. Questions, based on the performance measures, that determine whether the project is working as intended, what lessons have been learned, and how the project may need to be modified in order to get better results. |
| STRATEGIES | ↔ | PERFORMANCE MEASURES | 8 STAKEHOLDERS The funders, collaborators, and other individuals or organizations with a vested interest in the program who need to be involved in learning from the data being collected. |
| ACTIVITIES | | | 10 MECHANISMS FOR LEARNING The opportunities for stakeholders to come together and learn from and make decisions based on the data about the program. |

GLOSSARY

Activities

What has to happen or what you have to do to run your program. The specific set of actions, interventions, or services your program is undertaking.

Outcomes

A program's *measurable* results.

Outputs

Also referred to as "Measures of Effort," they are the measurable products of a program that point to what and how much a program accomplishes. They can include anything that can be counted such as people, activities, materials, time, etc. Outputs measure quantity, but not quality.

Indicators

Measures for which data are available, which help quantify the achievement of the desired results for community-wide populations. Indicators can be short-term (interim) or long-term (ultimate).

Logic Model

A framework that shows the relationship between the program's ultimate aim (its results) and the strategies and activities it is using to get there, along with how it will measure progress along the way. The logic model summarizes the key elements of your program, reveals the rationale behind your approach, articulates your intended outcomes and how they can be measured, and shows the cause-and-effect relationships between your program and its intended outcomes.

Performance Measures

Measures connected directly to your program on the level of activity, efficiency, capacity, or quality of the services or interventions being offered. A program acting alone can affect performance measures. *Measures of effort* are the direct outputs or program strategies and activities. *Measures of effect* are changes in your target population that come about as a result of program strategies and activities.

Results

The overall long-term vision or goal for your community as a whole or for the children, adults, and families living in your community. Results usually cannot be achieved by one program alone, but are produced by many factors, individuals, and organizations working toward the same general ends.

Stakeholders

The board members, program participants, funders, collaborators, community members, and other individuals or organizations with a vested interest in your program and performance.

Strategies

The broad approaches that the program will use to affect the conditions or causes that are the reason behind the program's creation and that are needed in order to reach the desired results.

