

Everything You Wanted to Know About Logic Models But Were Afraid to Ask

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This paper addresses situations where a private foundation designs an initiative and awards grants to a number of sites to participate in the initiative in their local setting. The basic ideas are applicable to other situations.

What is a Logic Model?

The term "logic model" comes from the evaluation field, but these models don't just belong to evaluators or the evaluation plan. As the term suggests, they are a basic element of programming that communicates the logic behind a program, its rationale. A logic model's purpose is to communicate the underlying "theory" or set of assumptions or hypotheses that program proponents have about why the program will work, or about why it is a good solution to an identified problem.

Logic models are typically diagrams, flow sheets, or some other type of visual schematic that conveys relationships between contextual factors and programmatic inputs, processes, and outcomes. Logic models can come in all shapes and sizes: boxes with connecting lines that are read from left to right (or top to bottom); circular loops with arrows going in or out; or other visual metaphors and devices. What these schemata have in common are they attempt to show the links in a chain of reasoning about "what causes what," in relationship to the desired outcome or goal. The desired outcome or goal is usually shown as the last link in the model.

How are Logic Models Different from Action Plans?

Logic models are often confused with "action plans." While there are some overlaps, the difference is subtle but very important. An action plan is a manager's guide for running the project. It shows, often through a set of program objectives and a timeline or task outline, what *staff or others need to do* to implement a project (e.g., "hire outreach

worker," "launch media campaign," "revise curricula"). A logic model illustrates the presumed *effects* of hiring an outreach worker, launching a media campaign, or using revised curricula. (For example, "trained outreach workers lead to more information about AIDS getting dispensed in a high-risk neighborhood; increased contacts with outreach workers leads to a greater proportion of hard-to-reach clients coming in for treatment"). These hypotheses about program effects are described in a logic model, are tested in a "theory-based" evaluation, and lead to "lessons learned." If program planners don't have any hypotheses guiding them, their potential for learning from the initiative is low, and the program is probably in trouble.

Why develop Logic Models?

Logic models are useful for all parties involved in an initiative—the initiating organization's board members and top administrators, initiative leaders and staff, participating organizations, evaluators, and others seeking to understand the work. Logic models:

- convey the fundamental purpose of an initiative
- show why the initiative is important
- show what will result from an initiative
- depict the actions/causes expected to lead to the desired results
- become a common language and reference point for everyone involved in the initiative
- serve as the basis to determine whether planned actions are likely to lead to the desired results

How Detailed Should Logic Models Be?

Ideally a logic model is contained within a single page with enough detail that it can be explained fairly easily and understood by other people. The value of a logic model is that it visually expresses beliefs about why the program is likely to succeed. Because it is visual, it typically can be more easily remembered. If the model has so much detail, however, or is so complexly drawn that it cannot be remembered, it loses some of its value. On the other hand, if the model is so stripped of information that it consists of just a few abstract headings or generic looking boxes, then it may not communicate the program's logic well enough to be useful.

A logic model may be divided into key parts or phases with each part/phase on a separate page. The parts would be accompanied by a less detailed full model given on one page that shows how the parts fit together into a whole.

Logic modeling is an art than requires practice!

How Else Can Program Logic Be Conveyed?

Logic models represent a visual way of expressing the rationale or thought behind a program. Two other forms of expression may help concurrently support the development of a logic model, or accompany the model if it is to be communicated through written materials.

One form is a short narrative that explains in words why this program is believed to be successful. A good narrative does the same thing as the logic model, but it may be more clear or persuasive, especially if it conveys the program planners' deep understanding of "the problem," or a passionate argument about why certain strategies or actions are believed efficacious. A narrative can also communicate a programming philosophy or ethic that a visual model cannot.

A second form is a set of "if-then" statements. These statements, which are written out as a set of short bulleted phrases, are unabashedly analytic. "If such and such can be achieved or is allowed to happen . . . then such and such will follow. And if such and such follows, then we should see some decrease in the problem which we are addressing, or increase in the type of outcome we're looking for." Good "if-then" statements help supply some of the detail missing in a logic model; they attempt to fill in as many of the critical "links in the chain of reasoning" as possible.

What are Logic Models Based On?

Logic models are based on knowledge about a field of endeavor that can be gained from personal and professional experience, the research literature, background information from key informants, future projections, and other sources. It's difficult to develop a logic model, however—or a narrative rationale, or the "if-then" statements—without clearly defining a need and developing a deep understanding of the problem. As a philosopher of science once said, "The seeds of every solution are embedded in the formulation of the problem."

Faulty logic models occur when the essential problem has not been clearly stated and defined, or factors influencing a problem are not well understood. It's not enough to have a goal (although clear goals are also essential). Goals exist because some action is needed. And it's hard to argue that action is needed if you don't have a problem. The factors affecting problems (and therefore goals) include both positive influences (called "protective factors" in some fields) as well as negative influences ("risk factors"). Developing a "mental map of the problem" is therefore a crucial preliminary step to developing a logic model and formulating a program strategy. These mental models of the problem can also be diagrammed in a visual way to show the causal effects of variables on outcomes. A good logic model will show how the initiative is strategically addressing factors that influence the problem. If the logic model is unrelated to the

mental map of the problem, then that signals a "red flag" either in the conceptualization of the problem, or in the programming strategy.

Who gets involved in developing logic models?

The development of a logic model begins with the initiative developers, e.g., a foundation. Their theory of "cause and effect" is the basis for the model. They may involve planners or evaluators with experience in logic modeling to help convert their theory into a logic model.

Once the initiative has a logic model, participants in the initiative (e.g., grantees of the foundation) develop their own more specific logic model that is congruent with the initiative's model. Their model may show the role of the organization leading the initiative.

When should logic models be developed, revised, or changed?

A foundation initiative typically would have a logic model in its initial description. However, foundation initiatives involve ongoing learning. Thus the initial logic model may need to be revised periodically. One likely time for revisions would be when grantees develop their site-specific models. During that process, new information may arise that suggests a need for revisions of the initial model. Other likely revision times are at the end of each phase of an initiative or at major evaluation reporting points.

Should the foundation be a defined entity within a logic model?

The answer to this question may vary depending on what the foundation's role is. A foundation can be a significant force—money, credibility, people, knowledge—in the success of the work during the life of the grant. If ownership and initiation of the initiative comes largely from the foundation at the beginning and needs to move to the sites, it may be important to explicitly show this transition in the model.