**A Brief Introduction to Logic Models**

**Logic model basics**

A logic model is a diagrammatic representation of the various components of a program aimed at addressing a problem or issue of interest. A descriptive tool that provides an overview of how a program functions, it links resources and planned work to intended outcomes. Thought of as a roadmap or blueprint for change, a logic model enables stakeholders to systematically organize, visualize, and quickly comprehend their program. Moreover, by mapping the relationships between intentional work and desired change, and the progression of the program from start to finish, a logic model can facilitate a better understanding of program planning, design, implementation, analysis, and evaluation.

There are numerous logic model designs; a common type and a constructive starting point is a linear “pipeline” illustration, as in Figure 1.

**Figure 1. A basic logic model with the “outputs” component.**

Inputs

Outputs

Activities

Outcomes

Impact

A typical logic model, like in the above figure, consists of the following basic components: Inputs, Activities, Outputs, Outcomes, and Impact.

***Inputs*** are the resources—like funding, staff and other stakeholders, materials, and specialized capacities—allocated to the program that are necessary to implement the program.

***Activities***, made possible by the *inputs*,comprise the intervention of the program; that is, all the intentional work—such as counseling sessions or professional development training—that stakeholders undertake, all the processes, actions, and events implemented, to catalyze change. Since the purpose of the program is to address a problem, the *activities*, collectively, are the proposed solution.

***Outputs*** capture the direct results from the program activities—for example, the number of people served by a workshop, or the number of times a workshop was offered. Put differently, *outputs* are the evidence that the program has been implemented.

***Outcomes*** represent specific, measurable changes that are expected from the program *activities*—for instance, an increase in test scores among program participants. The Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) framework for goals is a helpful tool for identifying appropriate *outcomes*. Also, in some cases, it may be useful to divide *outcomes* into short- and long-term categories based on the length of the program; for example, there may be *outcomes* that you want to observe in the initial 1 to 2 years of the program, and other *outcomes* that you expect to observe 3 or more years into the program.

***Impact*** is the desired effect of the program; it’s the overall change, the lasting influence, that the program’s *activities* are intended to induce. This is typically conceived of as a broader, system-level change.

An important distinction: *outputs* represent what a program does, whereas *outcomes* describe measurable micro-level change, and *impact* is the macro-level change.

**How to read a logic model**

Because a logic model illustrates a sequence of reasoning, connecting the various parts of a program, it can be read like a series of “*if...then*” statements. This is described using Figure 1, starting with the *Inputs* stage and proceeding, from left to right, to each successive step.

**Inputs:** *If* we implement our program to address some problem or issue, *then* these are the resources we need and are available to us to invest in it.

**Activities:** *If* we invest those inputs, *then* this is the planned work we’ll do to accomplish our goals.

**Outputs:** *If* we carry out our planned work, *then* these are the direct results of that work which we intend to see.

**Outcomes:** *If* we accomplished the intended goals from our planned work, *then* we want to see these specific changes among program participants.

**Impact:** *If* we accomplished those outcomes among our program participants, *then* we hope to see these broader changes in the community.

As a helpful aid in constructing a logic model, Figure 3 condenses this chain of reasoning into a key question at every step. These prompts can also be found in the attached logic model template.

**Figure 2. Considerations when constructing a logic model.**

Inputs

*What resources do we need and are available to implement the program?*

Activities

*What is the planned work that we will do through this program?*

Outputs

*What are the results we expect to see from our program?*

Outcomes

*What specific changes do we want to see from our program?*

Impact

*What broader changes do we hope to see from our program?*

**Logic Model Examples**

**Example - A simple logic model**

An example of a simple logic model describing the basic components of a program—i.e., the *inputs*, *activities*, *outputs, outcomes*,and *impact*—is Figure 4. This diagram illustrates a comprehensive afterschool program to be implemented in New York City community schools.

The problem this program tackles is the lack of investment in the academic, emotional, and physical development of students in three high-needs community schools in the city. A partnership between several community stakeholders proposes their solution: an afterschool initiative that will address those areas of need by delivering well-rounded programming and necessary supports to students. Because of the program’s focus on both the academic and non-academic needs of students, it integrates services for families and school teachers that will work in harmony to help the children thrive.

Starting with the *inputs*, the program partners have an array of resources for their initiative; this includes federal funding, school and community-based organization staff, and technological tools.

Using those *inputs*, or resources, the program partners will implement a variety of activities, such as academic courses for students, workshops for family members, and professional development training for school teachers.

After successfully carrying out those *activities*, the stakeholders expect the program to have achieved specific *outputs*, or results, which will enable them to measure the extent to which they administered their program according to plan; these include the provision of STEM instruction 5 days per week that served a total of 300 students, or the delivery of professional development training 1 day per month that was attended by a total of 60 school teachers.

Given those *outputs* from the *activities*, some of the *outcomes* that the program partners want to see from their effort are improvements in report card grades and test scores in certain subjects, as well as in classroom behavior and peer relationships.

After the program ends and they have observed the *outcomes* they wanted to see, the stakeholders then hope to observe their desired *impact*, the long-term change they aimed to have the program induce: whole child development.

**Example – An alternative logic model**

Another version of the program logic model in Figure 4 is presented in Figure 5. Stylistically different, Figure 5 features program components sorted by audience and activity type, as well as a *vision* section. Notwithstanding these differences, the programs illustrated in Figures 4 and 5 are fundamentally the same.

The logic model in Figure 5 visually organizes the components such that specific activities are grouped by target audience. And progressing through the diagram, these activities are explicitly connected to specific program *outputs*, *outcomes*, and *impacts*.

The roadmap also incorporates a *vision* section that acts as a reminder of the program’s mission statement, which may differ from the program’s lasting influence outlined in the *impact* section.

To reiterate, Figures 4 and 5 present the same program but organize information in distinctive ways. It’s important to remember that there are many different flavors of logic models, and these examples portray only a couple of the many possibilities. The best logic model is the one that fits the needs of the stakeholders.

**Figure 3. Logic model for a comprehensive afterschool program in high-needs New York City community schools.**

**Inputs Activities Outputs Outcomes Impact**

**Afterschool academic programs: Students**

• English Language Arts (ELA) enrichment

• STEM enrichment courses

**Afterschool youth development programs: Students**

• Arts activities

• Fitness and wellness activities

• Social emotional learning (SEL) activities

**Programs: School teachers**

• Professional development courses

**Programs: Family**

• Adult literacy courses—e.g., empowered parenting, cyber safety, service referrals

• Field trips and family events for family members and students

**ELA and STEM courses**

• 1 hour/day of instruction

• 5 days/week of instruction

• 300 students served

**Arts activities**

• 1 hour/day of instruction

• 2 days/week of instruction

• 200 students served

**Fitness and wellness activities**

• 1 hour/day of instruction

• 2 days/week of instruction

• 200 students served

**SEL activities**

• 1 hour/day of instruction

• 1 day/week of instruction

• 200 students served

**Adult literacy courses**

• Twice per month

• 50 families served

**Field trips/Special events**

• Once per month

• 50 families served

**Professional development courses**

• Once per month

• 60 teachers served

• Students receive well-rounded programming and engage in family activities that foster whole child development

• Students enhance their readiness to learn, their social and emotional capacities, and their academic performance

• Families and students learn together

• Families and students become active members of their school communities

• School teachers are better equipped to support students’ academic, social, and emotional growth

**ELA and STEM**

• 50% of students increase their report card grades and standardized test scores on ELA and STEM material

**Arts; Fitness and wellness; SEL**

• 25% of students improve their school attendance

• 75% of students improve classroom behavior and peer relationships

• 50% of students improve their sense of self and sense of future

• 50% of students decrease risky behavior

**School teachers**

• Teachers engage in continuous learning

• Teachers improve their ability to motivate students and manage classroom behavior

**Family**

• Family members increase their participation in their child’s education

• Family members increase their involvement in educational events

**Funding**

• Federal grant ($1 million)

**Partners: Schools**

• School\_1, School\_2, School\_3

• School leadership

• Certified teachers

• Building spaces

**Partners: Community-based organizations**

• CBO\_1, CBO\_2, CBO\_3

• Program staff

**Partners: NYC DOE**

• Grant management staff

• Evaluation staff

• Database for data collection: *SomeDatabase.com*

**Specialized curricula**

**Learning technology**

• Online learning platforms

• Laptops

• Science, Technology, Engineering and Math (STEM) kits

**Figure 4. A more detailed logic model for a comprehensive afterschool program in community schools.**

**Inputs Activities Outputs Outcomes Impact**

• Students enhance their readiness to learn, their social and emotional capacities, and their academic performance

• 50% of students increase their report card grades and standardized test scores on ELA material

• 50% of students increase their report card grades and standardized test scores on STEM material

**Funding**

• Federal grant ($1 million)

**Partners: Schools**

• School\_1, School\_2,

School\_3

• School leadership

• Certified teachers

• Building spaces

**Partners: Community-based organizations**

• CBO\_1, CBO\_2,

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• Program staff

**Partners: NYC DOE**

• Grant management staff

• Evaluation staff

• Database for data collection: *SomeDatabase.com*

**Specialized curricula**

**Learning technology**

• Online learning platforms

• Laptops

• Science, Technology, Engineering and Math (STEM) kits

**ELA courses**

• 1 hour/day of instruction

• 5 days/week of instruction

• 300 students served

**STEM courses**

• 1 hour/day of instruction

• 5 days/week of instruction

• 300 students served

**Afterschool academic programs: Students**

• ELA enrichment courses

• STEM enrichment courses

**Afterschool youth development programs: Students**

• Arts activities

• Fitness & wellness activities

• Social emotional learning (SEL) activities

The community schools are leaders in providing all students with well-rounded programming and activities that foster whole child development

**Arts activities**

• 1 hour/day of instruction

• 2 days/week of instruction

• 200 students served

**Fitness and wellness activities**

• 1 hour/day of instruction

• 2 days/week of instruction

• 200 students served

**SEL activities**

• 1 hour/day of instruction

• 1 day/week of instruction

• 200 students served

• 25% of students improve their school attendance

• 75% of students improve classroom behavior and peer relationships

• 50% of students improve their sense of self and sense of future

• 50% of students decrease risky behavior

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• Families and students learn together

• Families and students become active members of their school communities

**Programs: Family**

• Adult literacy courses—e.g., empowered parenting, cyber safety, service referrals

• Field trips and special events for family members and students

s

**Adult literacy courses**

• Twice per month

• 50 families served

**Field trips/Special events**

• Once per month

• 50 families served

• Family members increase their participation in their child’s education

• Family members increase their involvement in educational events

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• Teachers engage in continuous learning

• Teachers improve their ability to motivate students and manage classroom behavior

• School teachers are better equipped to support students’ academic, social, and emotional growth

**Programs: School teachers**

Professional development courses

**Professional development courses**

• Once per month

• 60 teachers served

**Vision**

Provide every student with a nurturing place that cultivates the skills they need to learn, explore, and grow

**Appendix. Logic Model Template.**

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| **PROBLEM/ISSUE** |
| *What problem or issue will the program address?* |
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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **INPUTS** | **ACTIVITIES** | **OUTPUTS** | **OUTCOMES** | **IMPACT** |
| *What resources do we need and are available to implement the program?* | *What is the planned work that we will do through this program?* | *What are the results we expect to see from our program?* | *What specific changes do we want to see from our program?* | *What broader changes do we hope to see from our program?* |
|  |  |  |  |  |