Framing Program Evaluation: Why We Should Tinker With Theories of Change and Logic Models

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A theory of change provides a comprehensive picture of the early- and intermediate-term changes that are needed to reach a long-term goal. It is usually articulated using “If” and “Then” statements.

A logic model is a graphic that illustrates a program’s theory of change, showing how day-to-day activities connect to the results or outcomes the program is trying to achieve. Similar to a flowchart, it lays out program activities and outcomes using boxes, and using arrows to connect the boxes, shows how the activities and outcomes connect with one another.

Sunindiya Bhalla, the senior director of Community Impact at the United Way of Massachusetts Bay and Merrimack Valley, was very excited when a group of graduate students from Bocala’s class first contacted her. Help had arrived to support the evaluation of their Brain Building in Progress (BBIP) campaign. For the last three years, Bhalla’s organization and the Massachusetts Department of Early Care and Education had been implementing a public awareness campaign to convey the importance of investing in early learning. They focused on optimizing “brain-building moments,” that is, informal learning experiences that adults can create anytime, anywhere to promote children’s brain development. Bhalla and her staff had discussed the need to determine the success and impact of the campaign but were not sure how to go about it: “We didn’t actually have a lot in place. Any sort of evaluation we did was specific to something we were rolling out to get people’s opinions. Otherwise, we would just, by word of mouth, ask programs—not in a formal way—what they needed, what was useful, and things like that.”

Anairis Hinojosa, one of the graduate students who worked with BBIP, was eager to apply what she had learned about theory-based evaluation. In their initial conversations, Bhalla had indicated the program’s need for a road map to understand how it was reaching its top three audiences: direct caregivers, service providers, and civic groups. The program needed a theory of how all its components and strategies fit together, and how everyday activities were having an impact on the intended outcomes for the various audiences. In other words, the program was in need of a theory of change and a logic model. Hinojosa describes this phase of the work with BBIP:
After several detailed conversations, the graduate students and program staff developed the first BBIP theory of change and logic model (see Figures 1 and 2). Bhalla immediately realized the great value of having these two pieces in place: “This process really allowed us to see what we’re doing to get where we want to go.” Everyone at BBIP was able to check on the program assumptions about how their actions were making a difference. They were able to differentiate short-term and long-term outcomes, and see how their daily practices target different audiences. They learned that theories of change and logic models can be developed for the program overall, or for specific components. More importantly, Bhalla and the students started to see their own theory of change and logic model as a compass for specific evaluation and improvement plans. They knew that what, and how, they were going to measure would be guided by this compass. As Bhalla puts it: “Once we saw our theory of change and logic model, we realized that they were tools we could run with.”
Figure 2. Brain building in progress logic model

Long-term outcomes:
- Children benefit from a community-wide support system that gives them the foundation they need to succeed
- Children grow up in rich early learning environments

Short-term outcomes:
- Direct caregivers create anytime, anywhere brain building moments
- Service providers engage programs and events in brain building families and civic groups
- Civic groups advocate for childhood development and invest in early childhood workforce and training

Assumptions:
- "Brain building" will create more rich, early learning environments
- A broader range of educators and community members are necessary to increase education for children in early childhood
- Strategic messaging will influence adults' awareness of connections between early brain development and M's future prosperity

Audience Outcomes:
- "Brain building" will create more rich, early learning environments
- Increased awareness of connections between early brain development and M's future prosperity

Context:
- The logic model is designed to support the development and implementation of a program focused on early childhood education and brain development.

Service Providers:
- Attend BbP Training Workshops
- Communicate with other BbP groups and organizations
- Participate in brain building events

Community Events:
- Create community brain building events
- Programs and events
- BbP Week/Zone
- Use online event calendar to locate BbP Week events and BbZones
- Participate in workshops, trainings, and events
- Use brain building calendars at home

Civic Groups:
- Advocate for childhood development and invest in early childhood workforce and training
- Programs and events
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Online Resources:
- "Brain building" will create more rich, early learning environments
- Increased awareness of connections between early brain development and M's future prosperity

Print Materials:
- "Brain building" will create more rich, early learning environments
- Increased awareness of connections between early brain development and M's future prosperity

Impact:
- "Brain building" will create more rich, early learning environments
- Increased awareness of connections between early brain development and M's future prosperity
The Somerville Public Schools have engaged family and community members in children’s education through the Somerville Family Learning Collaborative (SFLC) for several years. Sarah Davila, the Somerville Public Schools administrator of programs, and Nomi Davidson, the director of the SFLC, were familiar with theory-based evaluation. The collaborative had an overarching theory of change about supporting children’s development and well-being by enhancing family engagement. In practice, this involved a multifaceted set of strategies: a family liaison program, a parent–child initiative, early childhood play groups, and home visiting, among other services. Even within those programs, the organization managed multiple activities and intended results.

The multilayered and complex nature of the work was an evaluation challenge. With many different program components and limited resources, it was difficult to evaluate the entire work of the organization. Davila, Davidson, and the graduate students from Bocala’s class decided to focus first on the family liaison program, since it was the effort the collaborative wanted to know the most about. Family liaisons worked in each of the 10 schools in the district to connect families with school and community resources. The graduate students and program staff engaged in an iterative process of developing a theory of change and logic model specific to the family liaison program. As Davila and Davidson describe: “We had Post-it paper on the wall, and as we talked with the students, they arranged the different ideas and asked us, ‘Does this represent the logic behind what you are trying to do?’ And we said, ‘Well, kind of, you know, but this is this or that is that.’ Then we would bring it back to the actual family liaisons working in the schools and ask them the same question, ‘Does this represent the work you do?’ And then, the model would change, it would go back and forth.” The students wanted to make sure that the logic model accurately represented the different stakeholders’ perspectives on how the strategies implemented related to what they intended to achieve. Figure 3 (on the next page) shows the final version of the family liaison program’s theory of change and logic model.

For the Somerville Family Learning Collaborative, developing a logic model with a clear and focused scope was a key step. Once the staff invested time and energy in thinking carefully about what they were doing for the family liaison program and why, they were able to reproduce the process for all other components of their program: “We ended up with a logic model that actually became the model that we’ve been able to vet throughout everything else we do in our program. It was a very helpful process with a very helpful product,” notes Davila.

### Five Steps for Developing Your Program’s Logic Model

| Step 1: Determine the appropriate scope for the logic model. |
| Step 2: Identify your model’s components. |
| Step 3: Draft the logic model. |
| Step 4: Use your logic model as an evaluation framework. |
| Step 5: Revisit your model often and use it as a learning tool. |

Theory of Change Statement:

Figure 3. Somerville Family Learning Collaborative and Theory of Change for the Family Liaison Program.
Taking a Step Back to Update and Refine a Theory of Change: The Case of Boston After School & Beyond

As organizations implement and scale programs, they tinker with their interventions. They identify new needs, reevaluate strategies, and adjust program activities to try to get closer to meeting a program’s goals. Rapid expansion compels organizations to reexamine their program assumptions and to ensure that existing evaluation models capture the relevant activities and outcomes. This was exactly what was happening at Boston After School & Beyond (BASB), a well-established organization that mobilizes community partnerships to expand afterschool and summer programs, and other expanded learning opportunities for children in the city of Boston.

As an intermediary organization, BASB provides training and support to partner organizations to strengthen and supplement their work. When BASB began measurement work six years ago, the focus was on testing innovative strategies and documenting partner programs’ impact on students. As a systemwide out-of-school time collaborative grew from these demonstration projects, BASB and its partners shifted to evaluation for continuous program quality improvement and scaled this evaluation approach across its portfolio of work. Katie Tosh, program director of Measurement and Outreach, explains: “As BASB moves toward more systems-level work, we recognized a need to evaluate our approach as a whole. We’re increasingly thinking about formative evaluations so that we can further explore why and how outcomes are happening.”

As BASB staff took a step back and embarked on a self-reflective process, they first examined the organization’s existing theory of change. They quickly realized it was outdated. Tosh recalls: “We observed some disconnect between that theory of change and the work we were actually doing at the time.” The timing for Bocala’s graduate students to offer their services could not have been better. Tosh and the students agreed on an action plan that involved students talking with BASB staff and other stakeholders to learn about what BASB does and how it defines organizational impact, to update the theory of change, and to develop a logic model (see Figure 4) for the entire organization.

This was a productive experience for everyone. Babe Liberman, one of the students working with BASB, talks about the value of having engaged in this process and of taking the time to think carefully about the theory behind this approach.
BASB had been running a great variety of projects that were coming from separate funding streams and consequently “siloed off” from one another. Starting with the fresh perspective offered by the logic model developed by the graduate students, BASB staff engaged in an extensive strategic planning process and further modified the theory of change and integrated logic model, resulting in a refined organizing tool that compiles different dimensions of their work in a cohesive manner. This gives BASB an opportunity to establish organization-wide outcomes on which it can measure progress. More importantly, BASB now has a clearer picture of how its various projects collectively contribute to measurable, systemwide impact.

**Figure 4. Boston After School & Beyond Theory of Change and Logic Model**

**What Is In Common?**

Although the three organizations had different evaluation needs, they also shared common experiences by working with the graduate students. First, all three organizations benefited from immersing themselves in a process of questioning and refining their program logic. They were able to organize complex and multilayered programs into logic models of what they do, whether in a broad or a more focused manner. Second, the process of reexamining their program activities and outcomes was iterative. The organizations generated drafts and
refined them over time as they talked to different internal stakeholders. They also embarked on an inclusive and collaborative journey: Theories of change and logic model development required a dialogue among the program directors, the graduate students, and program staff. Last, the theories of change and logic models positioned the organizations to start thinking about what is most commonly understood as evaluation: measurement and methods. They all reported to be ready to take the next steps, such as to:

1. Formulate evaluation questions that align with the theory of change and logic model;
2. Determine a research design that will ensure valid and reliable results and that fits with the program needs and resources;
3. Select instruments or tools that best help measure the processes and outcomes of interest;
4. Prepare for data collection and analysis; and
5. Share findings with all program staff and identify actionable items for improvement.

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