Developing a theory of change can guide programming and ensure that evaluation efforts are in alignment with what is happening in the program.

8

Evaluating afterschool programs

Priscilla M. Little

WELL-IMPLEMENTED AFTERSCHOOL programs can promote a range of positive learning and developmental outcomes, as described in other chapters of this volume. However, not all research and evaluation studies have shown the benefits of participation, in part because programs and their evaluation were out of sync. One example of this is the landmark study of the 21st Century Community Learning Centers initiative released in 2003 in which evaluators held the original set of 21st Century Community Learning Centers programs accountable to a new set of scientifically based research standards that they were not set up to deliver.[1] Therefore, results were considered "disappointing" and were used to attempt to cut the program's budget by 40 percent. But were the results truly disappointing, or was there a mismatch between what the programs were doing and what the evaluation was measuring? Debate on this question continued for several years, but one positive outcome of the fray was a renewed commitment to aligning program efforts and evaluation outcomes.

This chapter provides practical guidance on how to foster that alignment in order to produce actionable data. It begins with a discussion of why afterschool programs should develop and use a

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theory of change to guide program development, implementation, and evaluation. It then describes how to develop a logic model to depict program theory. It concludes with an overview of an approach to evaluation that ensures programs use evaluation information to improve and refine programming prior to using information for accountability purposes.

Getting started with evaluation: Developing a theory of change

Effective evaluation is more than just collecting and analyzing data. It can provide valuable information that afterschool programs can use for two main purposes: (1) *to make program improvements*, using information to figure out what is working and what is not, and allocate inevitability scarce resources accordingly; and (2) *to demonstrate accountability*, using information to make a case to funders and other stakeholders that the program is impacting its participants in positive ways and therefore should be sustained. Deciding why and how to conduct an evaluation that yields the kind of information a program needs, either for improvement, or accountability, or both, requires the convening of key program stakeholders to address questions such as: What is the program trying to accomplish? What do program funders expect? What is the program's target population? What resources does the program have for evaluation? And, who will conduct the evaluation? While all these questions are important, it is the first one—*what is the program trying to accomplish*?—that is critical to program and evaluation success. A recommended practice in addressing this question is to develop a theory of change for the program.[2]

Simply put, "there is nothing as practical as a good theory."[3] A sound theory of change can guide programming and ensure that evaluation efforts are in alignment with what is happening in the program for a shared understanding of what works and why.[4] It can be called many things—a roadmap, a strategy map, a theory of action—but all these terms refer to a process that asks programs to define the relationships among their goals, activities, and outcomes to illustrate the "method in the madness" of their program design. Developing a theory of change usually goes hand-in-glove with the development of a logic model.

Developing a logic model

A logic model is a diagram of how a program does its work. It illustrates the linkages between outcomes and activities, and articulates the theoretical assumptions for the program. It is a visual way of describing a shared understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve. There are many ways to create a logic model; a basic logic model consists of five components:

1. *Factors and resources*: the human, organizational, community, and financial resources available to implement the program as well as the conditions under which a program operates.
2. *Activities*: the interventions and services the program implements using its resources.
3. *Outputs*: the types, levels, and targets of service.
4. *Outcomes*: the specific desired changes in participants' behavior, knowledge, skills, and beliefs.
5. *Impact*: long-term benefit of program participation.[5]

Each of these components is described in more detail below.

Factors and resources

Afterschool programs need to manage expectations for achieving outcomes by examining the enabling factors as well as barriers to achieving results. In addition to considering the resources available to implement the program, it is important to consider the conditions and environment in which the program operates. This includes understanding: the needs of the target population and their families, what other afterschool programs exist and what they already are offering, and what outcomes funders and other stakeholders are most interested in promoting. Sometimes programs conduct a needs assessment to understand what the community needs and wants, and how it can best meet those needs. Even if a program is well established, a periodic assessment of needs is important as community demographics can change over time.

Activities

Program activities fall into three categories: products, services, and infrastructure. Afterschool *products* include the development of curricular materials, marketing brochures, and other print and electronic materials to support and promote the program. Afterschool *services* include the broad range of activities in which participants engage, with the aim of promoting the program's desired outcomes. A particular strength of afterschool programming is the ability to provide hands-on experiential learning that can lead to better outcomes in and out of school. In fact, dozens of afterschool research and evaluation studies conclude that afterschool programs can have a powerful impact on a range of learning and developmental outcomes by affording participants' opportunities to learn and practice new skills through hands-on experiential learning.[6] Afterschool *infrastructure* refers to the activities aimed at ensuring that a program has the capacity to deliver on the outcomes it aims to impact, most importantly, program quality and professional development efforts (see Chapter 2, for more information on program quality).

Outputs

Program outputs report on the direct results of program activities. Sometimes referred to as measures of effort, they can include the number, type, and frequency of products and services offered as well as youth participation rates. Outputs can also report on the frequency of and participation in program quality improvement efforts, including staff training and professional development. Outputs should flow directly from the program activities. For example, if a program is providing afterschool meals, then an output could be the number of meals served each reporting period.

Outcomes

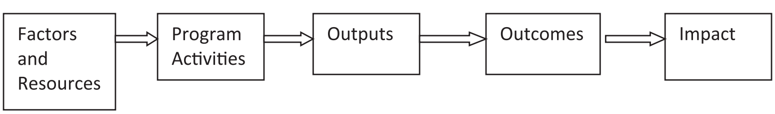
Outcomes are the set of behaviors, skills, attitudes, and beliefs that the program aims to impact at an individual level based on the activities that the program offers. They should be grounded in research and written to reflect duration of participation. For example, while research indicates that afterschool programs can contribute to improved behavior in school, a short-term outcome (1 year) might be improved relationships with peers in the program while a longer-term outcome (2–3 years) might be decreased disciplinary referrals in school.[7] Dosage is also a critical factor in determining outcomes, with research pointing to the conclusion that higher dosage tends to yield better outcomes.[8] Knowing that there is a relationship between dosage and outcomes underscores the importance of collecting participation data as one of the program outputs, so that data can be analyzed alongside outcomes data to tell a more nuanced story about program effects.

Impact

An impact statement articulates the community's vision for its youth, which the afterschool program supports but is not solely responsible for producing. Currently, many communities are framing their impact statements around college and career readiness. Afterschool programs then position their work as supporting the many dimensions that contribute to this impact, including healthy lifestyles, engagement in learning, and academic performance.

Logic models can take a variety of shapes and formats and Figure 8.1 illustrates a simple diagram based on the components described above.

Figure 8.1. Basic logic model



Begin with the end in mind

While the diagram is linear, starting with resources on the left and ending with impacts on the right, developing a model requires that a program begin with the end in mind, addressing the question of "what is the long-term impact this community wants to achieve for its youth?" Then, program stakeholders can discuss what outcomes they think their afterschool program could achieve that would contribute to the community impact statement. Once outcomes have been determined, then program design is the process by which stakeholders determine the resources, activities, and outputs that will lead to the desired outcomes.

For example, many communities seek to improve on-time graduation rates for high school students. Research indicates that afterschool programs can help achieve this goal by improving school-day attendance and fostering greater engagement in learning.[9] Programs can work toward these outcomes by implementing a number of different activities that offer academic enrichment and homework support, the outputs of which are more time doing homework, greater homework completion, and more time spent on academic enrichment. Finally, successful implementation of activities requires recognition of the community conditions and resources available to support program products, services, and infrastructure. If a program theory is sound, then one can start with any box in the model, move in either direction, and understand the relationships. Logic model development should be an iterative process in which stakeholders continually reflect on how defining one element of the model necessitates a review of the other elements so that at the end of the process the elements depict one coherent picture of what a program is trying to accomplish.

An evaluation approach for continuous improvement and learning

Once an afterschool program has developed a sound theory of change, it can use it to guide an evaluation irrespective of the questions it wants to explore. There are numerous approaches to conducting a program evaluation. One that is particularly well suited to afterschool programs that want to put their evaluation results to work is the five-tiered approach to evaluation because it places emphasis and provides guidance on using evaluation results to drive program improvements.[10]

The five-tiered approach describes evaluation as a series of five steps that help programs move from implementation to outcomes evaluation. It is based on a fundamental evaluation premise that programs should conduct formative evaluation to understand what works and why prior to conducting summative evaluation that assesses specific participant outcomes.

Tier 1: Pre-implementation planning

The purpose of pre-implementation planning is to determine the community needs and how the afterschool program will address them. Two tasks are central to this tier: (1) conducting a needs assessment to determine what families and youth need from an afterschool program, and (2) developing a logic model that reflects program theory based on credible research which can be used to guide program implementation and set the stage for evaluation efforts. Working on this tier is particularly important for new programs; however, with shifting demographics in many communities even well-established programs should periodically revisit the match between what they are offering and what a community needs.

Tier 2: Documenting program services

Monitoring a program to document the services it provides helps programs understand if they are reaching their intended target populations with the opportunities they set out to provide. It involves collecting information on the outputs listed in the logic model. These could include program participation, activity offerings, staffing patterns, staff training, and transportation usage. Collecting this kind of information helps a program describe and communicate what it is doing and it sets the stage for the next tier of evaluation.

Tier 3: Program clarification

This tier of evaluation is where programs examine the fit between data collected in Tiers 1 and 2 to see if what the program is doing (Tier 2) is consistent with what it set out to do (Tier 1). In this tier, programs use their data to reflect on what is working, what is not working, and discuss lessons learned from early implementation. At this juncture, it can be helpful to revisit the literature on how other programs have successfully navigated a particular challenge identified.

Tier 4: Program modification and progress toward outcomes

Building on Tiers 1–3, activities in this tier should start with a refinement of the theory of change to reflect the lessons learned from early evaluation activities. Sometimes at this stage programs engage external evaluators to formally assess implementation and compare what a program set out do to with what it actually accomplished.

Once a program (and its evaluator) has revised its theory of change, it is ready to begin systematically collecting data on the outcomes it has identified. Too often, this is an overlooked phase of evaluation, and one that can result in misalignment between what a program is doing and what a program is measuring.

Efforts to assess progress toward outcomes necessitate that a program begin to grapple with issues of evaluation design and measurement, and again a program may want to consider engaging an external evaluator at this phase of evaluation. However, many programs conduct their own evaluation activities and are able to report basic outcomes information about their program participants. Regardless of whether a program conducts its own evaluation, or engages an external evaluator, if it wants to gain access to school-day records on its participants (e.g., grades, behavior, and school-day attendance) then a critical activity for this tier is to develop a data sharing agreement with the school district.[11]

Tier 5: Program impact

After conducting Tiers 1–4, some programs decide they are ready and have the resources to engage in an evaluation to definitively address questions related to program impact. Unlike Tiers 1–4, which programs can implement independently, Tier 5 requires an evaluation partner that can work with the program to design an evaluation that addresses questions such as:

- Did the program impact the desired short- and long-term youth outcomes?
- What is the relationship between program participation and outcomes?
- What is the impact of program quality on the intended youth outcomes?

Results of data collected in Tier 5 can be used to build a case for program sustainability, replication, and scale but, most importantly, they can be used to drive program improvements, thereby perpetuating the cycle of continuous improvement that is at the heart of the five-tier approach.

Final considerations

Even with a sound program theory and an evaluation design that meets the information needs of a program, sometimes evaluation results yield little benefit to the program. In conclusion, there are a set of considerations that can help ensure useful results.

- Make sure the right stakeholders are involved in the development of the theory of change and evaluation questions. This includes program staff, funders, families, and sometimes, the participants themselves.
- Be clear about the evaluation purpose. Consider how the results will be used and by whom.
- Don't try to evaluate every aspect of the program. Be focused on what information would be most helpful given the "age and

stage" of the program. New programs should stick to formative evaluation and use results to refine programming.

- Cross-walk evaluation indicators with program goals and objectives using the program logic model to ensure alignment between program design and the evaluation.
- Convene stakeholders to discuss and interpret evaluation results. Consider the implications of the findings for program improvement and accountability.
- Translate evaluation results into usable information. Too often, good evaluations suffer from poor communications and this renders the results difficult to interpret and use.

Notes

1. Little, P. (2003). *The Evaluation Exchange Special Report on the 21st Century Community Learning Centers Program National Evaluation. The Evaluation Exchange*, *IX*, *1*. Cambridge, MA: Harvard Family Research Project.

2. For more information on getting started with evaluation see: Little, P., DuPree, S., & Deich, S. (2002). *Documenting progress and demonstrating results: Evaluating local out-of-school time programs*. Cambridge, MA: Harvard Family Research Project; For a full discussion of theory of change see http://www.theoryofchange.org/

3. Lewin, K. (1951). Defining the "field at a given time." In D. Cartwright (Ed.), *Field theory in social science: Selected theoretical papers* (pp. 43–59). New York, NY: Harper & Row.

4. For more information on theory-based programming see: Weiss, C. H. (1972). *Evaluation research: Methods of assessing program effectiveness*. Englewood Cliffs, NJ: Prentice-Hall.

5. For more information on developing a logic model see: W.K. Kellogg Foundation. (2004). *Logic model development guide*. Battle Creek, MI: Author.

6. Little, P., Wimer, C., & Weiss, H. (2008). *Afterschool programs in the 21st century: Their potential and what it takes to achieve it*. Cambridge, MA: Harvard Family Research Project; Intercultural Center for Research in Education and National Institute of Out-of-School Time. (2005). *Pathways to success for youth: What counts in afterschool*. Arlington, MA: Author.

7. Little et al. (2008); Intercultural Center for Research in Education and National Institute of Out-of-School Time. (2005).

8. Simpkins-Chaput, S., Little, P., & Weiss, H. B. (2004). *Understanding and measuring attendance in out-of-school time programs* (Issues and Opportunities in Out-of-School Time Evaluation Brief No. 7). Cambridge, MA: Harvard Family Research Project.

9. Little, Wimer, & Weiss. (2008).

10. For more information on the five-tier approach see: Jacobs, F. H. (1988). The five-tiered approach to evaluation: Context and implemen-

tation. In H. B. Weiss & F. H. Jacobs (Eds.), *Evaluating family programs* (pp. 37–68). Hawthorne, NY: Aldine de Gruyter; Callor, S., Betts, S. C., Carter, R., Marczak, M. S., Peterson, D. J., Richmond, L. S., & University of Arizona. (2000). *Community-based project evaluation guide*. Retrieved from http://ag.arizona.edu/sfcs/cyfernet/cyfar/stst_guide.pdf

11. For guidance on developing data sharing agreements see: McLaughlin, M., & London, R. (Eds.). (2013). *From data to action: A community approach to improving youth outcomes*. Cambridge, MA: Harvard University Press.

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Commentary

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IN THIS USEFUL chapter, Priscilla M. Little outlines how a sound theory of change can guide programming and ensure that evaluation efforts produce actionable data for afterschool programs. She describes both the importance of and ways to foster alignment between program efforts and evaluation outcomes. Navigating across these boundaries for community partners and researchers is no small feat. Examples of especially promising research partnerships involve many of the elements that Little identified as critical to successful practice.

Start with a theory of action and develop a logic model

Theory-based evaluation research focuses on gathering information that reveals the inevitable gap between the theory of action and the theory in use. When researchers work in close partnership with community partners to unearth the embedded logic models, they may help locate inconsistent logic and broken links between intended goals and missing strategies. Research partnerships help the programs to articulate and surface key assumptions. By doing so, the logic models and theories become explicit and can then be examined. A solid logic model that includes the components that Little outlines provides a coherent, continuous learning experience for the professionals and the youth engaged in the work.

The John W. Gardner Center for Youth and Their Communities at Stanford University: Building community–research partnerships

The Gardner Center partners with communities to develop leadership, conduct research, and effect change to improve the lives of youth. The Center executes on this mission by building partners' capacity to develop and expand their skills and knowledge about researchable questions, data collection and interpretation, and valid and reliable indicators of positive youth development that will result in actionable findings to improve outcomes for youth. The aim of generating actionable knowledge through regular and iterative exchanges between partners and researchers guides research design and the continual attention to relationship building.

Working in close partnership requires listening to the expressed goals and plans named by community-based organizations, school districts, city agencies, family groups, and others. Partnership also requires developing trusting relationships enabling researchers to hear the language of practice and reflect it back with a combination of respect and inquiry.

Is this what you mean: is your ultimate goal to have all students complete 8th grade? Which of your strategies provide targeted support to students to enable them to graduate? How will you know it's the right support? How will you know you are working with the "target" population? What makes you think your program will work?

These iterative conversations enable the Gardner Center to codevelop a theory of change or logic model that accurately reflects partners' aspirations. Research is then conducted on mutually agreed upon indicators.

The recursive nature of the dialogue between the practitioners and researchers facilitates an actionable set of evaluation products for a wide audience. The Gardner Center frequently describes its work as focused on actionable research for community partners. Without sacrificing any rigor to scholarship, the research team supports the field specialists to articulate the research questions that are most meaningful to them. By addressing community questions with care, the research team informs practice *and* informs a wider field of scholarship, policy and practice. The approach of including multiple role groups in the construction of the research and attending to the logic model bridges the gap between research, practice, and policy. When the research focuses on the tight links between the goals, strategies and outcomes that the practitioners have chosen, the findings land with a captive audience.

Engaging in research on youth programming is a fundamentally human and relational endeavor. Supporting programs and researchers to communicate clearly about goals and strategies through logic models helps a community achieve its aspirations. Little's chapter provides a thoughtful roadmap for accomplishing actionable evaluation outcomes.

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