IES Institute of Education Sciences

REL West
Regional Educational Laboratory West

Defining and Measuring Progress: Aligning Data and Measures to Outputs and Outcomes of Logic Models: Webinar Questions and Answers

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- **Question 1:** Do you feel like you need a Theory of Change or an articulation of the "why" an organization believes that their activities/outputs will result in the desired outcomes/impacts before starting a Logic Model? Or do you feel that a Theory of Change is not necessary for this type of Logic Model work you did with this organization?
    - **Answer 1:** Developing a theory of change can be a powerful, unifying activity to help an organization create a common understanding of the purpose of an effort. When developed collectively and aligned, the theory of change can serve as the end-goal or "North Star" of an effort, while the logic model can identify the specific resources, activities, and outputs to achieve the stated outcomes. They work well together. In this case, since the theory for the national Head Start program was established, the logic model was the entry point for our work together.
- **Question 2:** Could observations be structured in such a way to be more quantitative?
    - **Answer 2:** Using a rubric in observations could provide quantifiable information or data. The observed activities or the "look-fors" could be identified in a rubric and/or could be counted during data collection (e.g., the number of minutes students are engaged in X activity).
- **Question 3:** I wonder if it may be helpful to differentiate why outcomes can be fairly loosely described and not include more specificity (similar to what a "SMARTE" goal is)?
    - **Answer 3:** Outcomes should be specific and measurable, though they may vary in the level of specificity. For example, an outcome may be to "increase the percentage of students ready for kindergarten" and the target in the measurement plan could specify the percent, the date to achieve it, and other key aspects of how to know if the outcome has been achieved.
- **Question 4:** What do you say to programs that have 1) ambitious outcomes that 2) cannot be modified but 3) they don't have access to the data that will best assess those outcomes?

- **Answer 4:** It is difficult when a program does not have the authority to define its outcomes or access to the data that will best assess those outcomes. Ideally, outcomes are developed with the perspectives of various people involved in the program. If the data are not available to assess those outcomes, they would be hard to measure. If possible, program staff may want to identify additional outcomes that would be helpful for continuous improvement efforts.

- **Question 5:** Can you talk about how the outputs can be planned to support the short-term outcomes? Specifically, how did NACOG's numbers on services typically delivered translate into an increase in family awareness of services? What changed in the outputs to set the stage for the outcome?

  - **Answer 5:** Outputs help document, or provide evidence of, program implementation. If the program is being implemented as intended then, in theory, it should be able to attain its outcomes. In that way, outputs help set the stage for outcomes. The example shared in the webinar is an extract from the NACOG logic model, so it does not share all of the activities that are contributing to attaining the outcome examples we shared. As part of the logic model for NACOG, the activities in the family engagement and community services strand include providing parent education programming and access to community supports and services. If families are participating in programs that share available services (which is the output count), then they should be increasing their awareness of services available to them (which is the short-term outcome).

- **Question 6:** What are the appropriate time frames for short-term vs. medium-term vs. long-term?

  - **Answer 6:** It is difficult to identify the appropriate time frames for each outcome since each outcome identifies an increased and more significant level of change, from a change in actions to systemic change. For example, after attending a brief professional learning series, Teacher A increases their understanding of how to use an activity to engage students in a new way (a short-term outcome). Then Teacher A begins using the activity as a regular classroom strategy (medium-term outcome). Finally, the activity is eventually implemented throughout the school and has become a standard practice improving student grades (long-term outcome). While it varies, a general frame is that the short-term outcome is typically attained in several months or a year (after they have participated in an activity). A medium-term outcome is typically attained in a year or two (after they have been able to use their increased skills or knowledge to change their practices, behaviors, etc.). A long-term outcome is typically attained in three to five years (after the changes in practice lead to broader changes such as student achievement).

- **Question 7:** What if, as an early childhood agency, one of your goals/outcomes is to build up supply of child care programs (centers/home-based care)? Could you speak to the difference between outputs and outcomes with regard to child care slots? Typically, we measure slots as outputs, but if your goal is growth, can it be an outcome? Thank you!

    - **Answer 7:** All outcomes and outputs should be connected to program activities/strategies. If your agency offers strategies connected to growing the number of child care providers in the area, then you could build the growth goal into your outcomes. For example, a related long-term outcome might be an increased number of child care programs in your area (at a target number that you set based on the baseline number of programs currently offered).

- **Question 8:** I'm wondering how to construct logic models for multilevel programs which are anticipated to affect principals, teachers, and students. In particular, the actions of the principals are expected to influence teachers, and the practices of the teachers are expected to influence students. Further, they are not passive recipients of an outside program, but rather are actively engaged in creating impact. What are the pros and cons of listing these different actors in the system as separate rows across the different columns of outcomes, versus as separate columns within activities?

    - **Answer 8:** Listing the different actors in a logic model can be valuable since it identifies the various roles and how each role impacts the other, demonstrating interconnected relationships. However, if too much information and too many actors are included in the logic model, measuring progress and communicating the work to others may be challenging.

- **Question 9:** Do you recommend incorporating targets and measures into the logic model itself?

    - **Answer 9:** There are many ways to construct logic models. Having the targets in the logic model outcomes is one approach. Another approach is to use the measurement plan to specify the targets and measures. This keeps the outcomes in the logic model simpler and easier for sharing with a wider audience.

- **Question 10:** How do you recommend deciding between, or combining and aligning across, different representations of theories of action (e.g., logic models, driver diagrams)?

    - **Answer 10:** It depends on the intended use of the information generated from any of these tools. A theory of action and logic model can pair well together to provide theoretical and logistical representations of the program. They can be used to help describe the program to various audiences, design program evaluations, or make decisions about program strategies. A driver diagram could be used to better understand what is contributing to the program attaining its outcomes, or not.

- **Question 11:** For Jennifer, did NACOG run into any challenges with identifying outputs/outcomes or any challenges identifying data sources for any of them? If so, how did you tackle those within your organization?

- **Answer 11:** Yes, our NACOG team did run into challenges with identifying outputs, outcomes, and data sources. We had several conversations internally and with REL West to be able to develop these. It took many hours of work, and many discussions to ensure the team felt our logic model accurately represented our programs. We struggled the most with defining medium-term outcomes. We have so many strands of our work that it was difficult to identify the key actions we expect to see from our teachers, children, and families related to the activities, outputs, and short-term outcomes. We also struggled to identify data sources that would help us measure the medium-term outcomes. We found that we had to add some data sources to what we are already collecting to ensure we are measuring change on various dimensions in intentional and focused ways.

- **Question 12:** Great Presentation and applied example–wonderful! Thinking about where fidelity data (folks are doing activities as intended) and organizational capacity data (quantitatively measuring system implementation variables over time e.g., barrier removal) might fit in logic model–I suspect it likely "it depends" :-) thanks!

  - **Answer 12:** Thank you! It does depend on the activities/strategies of the program. Generally, fidelity data can fit well within outputs since outputs are evidence of program implementation. Organizational capacity data could be incorporated into outcomes if there is an outcome specific to building organizational capacity.

- **Question 13:** Are meetings considered outputs?

  - **Answer 13:** Meetings could be considered program activities or program outputs (if they indicate evidence of program implementation and effort towards the intended outcomes). If meetings are part of how the program offers its services, then meetings could be an activity. A related output could be the number of meetings offered, or meeting agendas or related documentation that show evidence of implementation. Related outcomes should identify the changes in knowledge, attitudes, behaviors, and systemic changes that result from the meetings.

- **Question 14:** Jennifer, are you planning to align your 3–5 year planning cycle to the logic model? Is this recommended?

  - **Answer 14:** Yes, we will use our logic model in our planning cycle. We will be revisiting the logic model at least every six months to ensure it reflects our current programming. We will also be using it to inform our decisions about programmatic planning such as what aspects of our program to further develop and support. We have learned that it is recommended to use the logic model to inform our planning and to help us engage in discussions about what services we offer and how they are intended to support children and families. If we find, through our review of our data, that our program is not having its intended impact, we will be able to go back to our logic model and think about where some of the breakdowns may be occurring.

- **Question 15:** How do you respond to critiques of logic models that the process of achieving impact is not linear?
    - **Answer 15:** Change is often not linear, so having options to represent how the process is expected to work is important. Logic models can be constructed to be non-linear as well. Having a dynamic model that shows the relationships between activities, outputs, and outcomes can be helpful to track progress.
- **Question 16:** What if you are not able to measure long term goals ... such as Increase STEM workforce as a result of your middle school program. It may not be possible to do a longitudinal study.
    - **Answer 16:** While your middle school program may aim to increase the STEM workforce as a long-term goal and it is not realistic to measure that, there are measurable outcomes that indicate progress toward that goal. For example, capturing an increase in the number of middle school students who successfully complete STEM coursework may be an indicator of progress since successful completion is an important indicator for future courses of study.