

# Logic Models for State Literacy Plans



Phone: 1-833-773-CLSD (2573) Email: <u>literacy@seiservices.com</u> Website: <u>literacycenter.ed.gov</u>

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# **Introduction to Logic Models**

This document details the step-by-step process for creating a logic model to include as part of the evidence-based framework in the State literacy plan (SLP).

As introduced in Phase Two of the SLP Starter Kit, the SLP should be grounded in evidence; it should build on sound theory—a rationale for the proposed process, product, strategy, or practice that may include a logic model. A logic model can help conceptualize the links among the evidence, the SLP's goals, and the activities that need to be undertaken to reach those goals. The logic model can also help convey this information to stakeholders by offering a simple graphic representation of the SLP's theory of action—the reasoning behind why the SEA will implement the activities and framework detailed in the SLP.<sup>1</sup>

In general, a logic model can help you to:

- Create a common understanding of the assumptions and research underlying the initiative;
- Check that the desired outcomes will result from the planned strategies and activities;
- Communicate with stakeholders about the SLP's vision and life cycle;
- Develop a foundation for strategic planning; and
- Use the activities and outcomes to create an evaluation plan.

Logic model development could be the first step the SEA completes to help develop the literacy framework.<sup>2</sup> If a logic model is used, it could also inform the goals and activities.<sup>3</sup> When writing this section of the SLP, consider presenting the logic model before outlining the goals and activities. This will help explain why the SEA has chosen its approach. Engage the State literacy team and/or the stakeholder group in creating the logic model. Planning collaboratively will help build a common understanding of the SLP's purpose and goals.

The logic model can also be used as a checkpoint throughout implementation of the SLP to make sure progress is on-track and enable the SEA to adjust the timeline if needed. The SEA could also consider encouraging local educational agencies (LEAs) to create their own logic models that align with the long-term goals of the SEA's logic model.



<sup>&</sup>lt;sup>1</sup> Review Phase Two for more information on the components of a comprehensive SLP referenced in this document.

<sup>&</sup>lt;sup>2</sup>This relates to component 6 (effective evidence-based framework for literacy instruction). See Starter Kit Phase 2, page 20.

<sup>&</sup>lt;sup>3</sup>Goals and activities are set for component 5. See Starter Kit Phase 2, page 17.

Figure 1. Example logic model: California

Inputs/Resources	Activities	Outputs	Outcomes
California Department of Education State Literacy Team Comprehensive Center at WestEd CA CCSS ELA/Literacy Standards and all other SBE-adopted content standards CA ELD Standards CA Early Learning Foundations and Preschool English Learners documents CA Model School Library Standards CA EL Roadmap CA Dyslexia Guidelines CA Practitioners' Guide for Educating Els with Disabilities	Literacy Webinar Series Local Literacy Lead Agencies Technical Assistance Development of State Literacy Plan (SLP), including Comprehensive and Integrated Literacy Model Compilation of high- quality literacy and biliteracy program planning tools, templates, protocols, and examples	No. of webinar participants No. of positive evaluations for webinars from participants No. of LEAs receiving technical assistance No. of local literacy plans aligned to state plan Relevant, measurable outcomes for students served by LEAs	Short-term outcomes (1 year after SLP is adopted):  Definition/diagram of comprehensive and integrated approach to literacy instruction Local literacy and biliteracy planning tools and resources Increased local capacity to develop literacy plans Increased professional learning through the Literacy Webinar Series, which supports literacy achievement Mid-term outcomes (2 years after SLP is adopted): Increased capacity to implement local literacy plans Long-term outcome (3 years after SLP is adopted and ongoing): Improved student achievement in literacy Deeper knowledge at state and local levels about literacy support strategies Sustaining literacy supports and professional learning in LEAs

Figure 1 shows an example of how to structure a logic model based on the logic model included in California's SLP. The sections in the logic model could include:

- **Inputs**. These are the resources available to implement the program. Common inputs include personnel, money, equipment, supplies, and in-kind donations.
- **Activities**. These are the activities that the initiative will conduct to reach the outcomes.
- **Outputs**. These results of activities are often measured in amounts of something produced or provided.
- **Short-Term Outcomes**. These are typically the expected results within the first year.
- Mid-Term Outcomes. These are the expected results about one to three years after the initiative begins.
- Long-Term Outcomes. These outcomes will be achieved approximately four to seven years after the initiative begins.
- Context. This is a short summary of the current situation that describes the need, whom the need affects, and why the need should be addressed.

A blank logic model template appears in Appendix A.

#### **DEFINITION**

#### **Logic Model Theories**

**Program theory** encompasses both the theory of change and the theory of action.

A **theory of change** is a research-based statement of how the SLP will address existing needs. It helps design the approach by explaining how and why a change will occur without starting from an assumption of what the approach will be.

A **theory of action** is interchangeable with "logic model." It focuses on what the SLP will do to address the needs and achieve desired outcomes.

# Developing Program Theory for an SLP

#### **Understanding Logic Model Theories**

A logic model is a graphic representation of the SLP's **theory of action**. The theory of action is based on the SLP's **theory of change**. Taken together, a theory of change and a theory of action make up the **program theory**, which serves as the foundation of the SLP and justifies the approach taken in the SLP.

Program theory should be based on evidence. Fortunately, throughout the SLP development or revision process, you have been gathering the evidence you need. To begin, review:

- Past SLPs for your State to understand how they were designed, if applicable;
- The existing legislation and infrastructure for Component 2 (infrastructure, legislation, and related policies);<sup>4</sup>
- The data for Component 3 (needs of target populations);<sup>5</sup> and
- The existing literacy initiatives for Component 4 (alignment of SLP with other State literacy initiatives).<sup>6</sup>

#### **Identifying a Theory of Change**

A theory of change is an evidence-based hypothesis of what will cause the change needed to solve the current problem. Although you will invest substantial time in studying the evidence that supports the theory of change, the theory itself may be only a few sentences that summarize the SLP's vision and purposes.

The SEA may have an existing statewide or literacy-specific theory of change, or other initiatives within the State may have already established theories of change. Reach out to other departments, and if possible, start with existing theories before creating something new; doing so will

#### **EXAMPLE**

#### **Statewide Theory of Change**

Louisiana's theory of change "is driven by three interconnected improvement strategies: datainformed decision-making, evidence-based literacy practices, and continuous leadership development." This theory of change "is grounded in the assumption that teachers are successful at improving outcomes for students when equipped with a high-quality standards-based curriculum that includes evidence-based strategies, ongoing professional development to implement such curriculum with fidelity, and data from standards aligned assessments to inform how students are performing towards grade-level standards. These strategies, when implemented with fidelity, will result in increased ELA proficiency rates on statewide assessments for students with disabilities in grades three through five."

See <a href="https://www.louisianabelieves.com/docs/default-source/students-with-disabilities/state-systemic-improvement-plan-report-2019-2020.pdf?sfvrsn=70a66518\_2">https://www.louisianabelieves.com/docs/default-source/students-with-disabilities/state-systemic-improvement-plan-report-2019-2020.pdf?sfvrsn=70a66518\_2</a>, page 6.

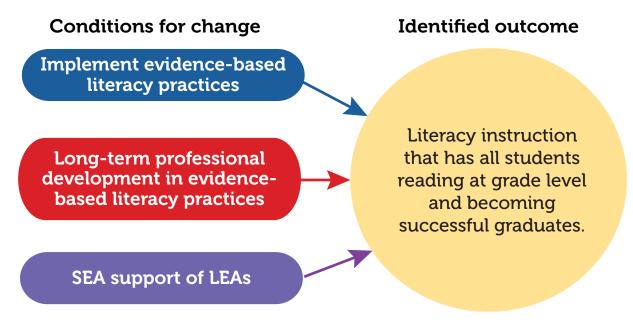
<sup>&</sup>lt;sup>4</sup>See Starter Kit Phase 2, page 6.

<sup>&</sup>lt;sup>5</sup> See Starter Kit Phase 2, page 11.

<sup>&</sup>lt;sup>6</sup> See Starter Kit Phase 2, page 14.

help establish continuity and alignment across SEA programs and provide your staff with a starting point. The logic model graphic typically represents the theory of action, but it is also possible to create a graphic of the theory of change to facilitate understanding. Figure 2 graphically displays an example of an SLP theory of change.

Figure 2. Graphic display of an SLP theory of change



Even though you will use the theory of change to develop the theory of action, the theory of change will most likely still accompany your logic model to show stakeholders the evidence-based foundation of the SLP, because both theories are useful and complement each other.

#### Building a Theory of Action

Now that you have a theory of change, build on it to develop the theory of action, which describes the actions needed to implement the solutions presented in the theory of change. Remember that "theory of action" and "logic model" are interchangeable terms. Therefore, the parts of the theory of action and the logic model are the same. In addition to summarizing the theory of action in a graphic format, the logic model can be accompanied by a narrative description. As mentioned previously, you may choose to create either the narrative or the graphic first; the parts you include and the steps you follow will be the same.

In the theory of action, you will identify the following:

- The State's current literacy context;
- The inputs (resources) needed to implement the initiative effectively;
- The activities that will be conducted;
- The outputs that will be produced by those activities; and
- The short-, mid-, and long-term outcomes that will result.

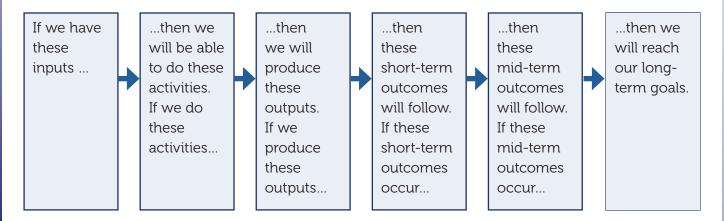
#### **EXAMPLE**

#### Theory of Change

Instruction that focuses on the five aspects of literacy will help students build reading, writing, and oral language skills. To deliver this instruction, educators must receive professional development that includes long-term supports such as coaching. The SEA must provide explicit supports for LEA implementation for the initiative to succeed. With this support, the percentage of students reading at grade level will increase and retention of students will decrease.

A useful way to frame the theory of action is to think of it as a series of if—then statements that describe the logical flow of the SLP.

When laid out in a logic model, the if—then statements will look like this:



You can see that the logic model simply represents the thought process behind the SLP's approach. Although the if—then statements do not need to be written, they guide your thinking.

Add another layer to these if—then statements by using evidence to include a "because" clause. If—then—because statements help you explain the connections between the logic model components. The "because" part of the statement provides the reason the change is expected to happen. If a reason cannot be found for a certain activity, modify it or replace it with another that can be justified by evidence.

The following examples show how "because" can be included in your thinking about specific program activities:

- If we develop robust professional learning communities among LEA leaders, then the new concepts and practices learned in professional development will be applied, because studies show that ongoing support after training helps to improve implementation of concepts.
- If we select English learners as a target population, then stakeholders will support implementation of the SLP, because our survey of stakeholders showed a high interest in addressing the needs of this population.

Use this same reasoning to justify the progression of outputs and outcomes in the logic model. For example:

- If LEAs consistently implement evidence-based practices, then more 3rd graders will advance to 4th grade, because our State's historical data show that LEAs implementing evidence-based practices have higher promotion rates.
- If students improve their scores on formative assessments, then their scores on State assessments will most likely increase, because studies show that formative assessment scores are indicators of success on State assessments.

Now that you understand theory of action concepts, begin creating one by adding more detail to the theory of change,

#### TIP

#### **Verifying Logic**

Although the logic model typically reads from left to right, you can also read it from right to left to verify the logic. You should be able to articulate why each outcome will be met based on the selected activities that will lead to that outcome. If an outcome is not sufficiently justified within the logic model, adjust as needed.

Analyze the draft logic model both forward and backward—from inputs to outcomes and vice versa—to make sure that the logical flow holds true and that it can reasonably be assumed that each component will lead to the next one.

including the broad outcomes you want to achieve and the general strategies needed to attain them. Although your theory of change and theory of action build on the same research, the theory of action should take the best practices discovered by the research and tailor them to your specific State contexts. The theory of action should also describe in detail how you will implement those strategies in your SLP.

# Theory of Action: Parts and Sequence

The following section describes the parts of the theory of action and presents the sequence for their development.

by First, state the context. In a graphic, the context is typically placed in a box at the top or bottom of the logic model to provide the reader with necessary background information. In a written narrative, the context is typically the first paragraph. It is a short summary of the current situation that describes the need, whom the need affects, and why the need should be addressed.

#### **EXAMPLE**

#### Context

The State has one large metropolitan area and many smaller suburban and rural districts. Early literacy outcomes are not consistent across LEAs in urban, suburban, and rural areas. The SEA has not had an SLP that has been consistently disseminated and supported. A cohesive SLP is needed to address the needs of the increasingly diverse population of the state while focusing on consistent implementation of evidence-based practices. The SLP will guide literacy initiatives throughout the State for the next five years, and with SEA support, it will increase literacy outcomes for all students, particularly target populations.

- **Next, identify outcomes.** Outcomes are the results you expect to see as a result of the initiative's strategies—that is, the changes you expect the initiative to cause.
  - Some outcomes will have been identified in the theory of change. In the theory of action, you will add time frames to the outcomes—and detail intermediary steps for meeting the outcomes—so that you have short-, mid-, and long-term outcomes. The first step in adding more detail is to determine how long it will take to achieve those outcomes. Each SEA should define the period covered by each outcome category based on the State's individual context and SLP timeline, but suggested guidelines for the time periods are described below.
  - **Short-term outcomes.** These are the results you expect to see within the first year. Short-term outcomes are the ones the program has the most direct control over. These outcomes cover changes in knowledge and perception of the target audiences, such as teachers, students, and families.
  - **Mid-term outcomes.** These are the outcomes the SEA wants to see result from the short-term outcomes. These outcomes cover behavioral changes—that is, what the members of the target audience do with the knowledge and perceptions they gained earlier in the initiative. Mid-term outcomes are results the SEA expects to see one to three years after the initiative begins.
  - **Long-term outcomes.** These outcomes indicate how the situation should be changed by the end of the initiative. Often these outcomes reflect a wider social change the SEA hopes to see over time. These outcomes will be achieved approximately four to seven years after the initiative begins.

# Example: Short-Term Outcome

LEA leaders train instructional staff members on evidence-based practices

# Example: Mid-Term Outcome

Proficiency across the five elements of literacy for targeted populations increases

## Example: Long-Term Outcome

Achievement gaps close

Once the time frame for each set of outcomes is determined, identify additional outcomes to those included in the theory of change and the goals you developed in Component 5 (goals and activities)<sup>7</sup>, and make sure each outcome has a short-, mid-, and long-term aspect. The outcomes should be reasonable, measurable, and feasible based on the initiative's specific context and available resources.

• **Define the activities to be conducted.** These are the activities that the initiative will conduct to reach the outcomes. Do not attempt to detail every activity; instead, group activities together—for example, "conduct outreach to LEAs" or "provide professional development."

<sup>&</sup>lt;sup>7</sup> See Starter Kit Phase 2, page 17.

#### **Outputs Versus Outcomes**

Outputs and outcomes may seem to overlap, but they are different. As you develop the logic model, keep in mind that an output is a direct result of an activity, whereas an outcome is something that the program is trying to change.

- Outputs measure the process of implementing the SLP.
- Outcomes measure some change that the SLP is trying to cause.

When determining whether something is an output or an outcome, ask whether it is something that is directly produced by an activity or it is something (e.g., an attitude, knowledge, or behavior) an activity is trying to change. Asking this question can help you place outputs and outcomes in the correct section of the logic model. For example:

- The State literacy team may produce a series of fact sheets about SLP implementation (output) that will increase the use of specific evidence-based strategies in classrooms (outcome).
- An SEA may provide onsite consultations with literacy experts to LEAs (output) to improve district administrators' capacity to implement the SLP (outcome).

Work backward from the outcomes to identify the activities that will help reach those outcomes. Evidence from the literature will help you identify the types of activities most likely to lead to the outcomes you seek and the scale at which those activities must be implemented. Show that selected activities can be implemented with the resources available, in the appropriate intensity, and at the right time to ensure success. Together, these will lead to the desired outcomes. Select only activities that research or experience has shown to be likely successful; if past literacy strategies have not been successful, identify new methods for achieving the desired outcomes.

#### Specify the inputs and outputs.

- **Inputs.** These are the resources available to implement the program. Common inputs include personnel, money, equipment, supplies, and in-kind donations.
  - Identify what resources will be necessary to implement the activities. Once resources are identified, you may find resource gaps, meaning the current resources do not match what is necessary. Determine whether gaps can be filled by other funding sources, partners such as institutions of higher education, or other means. If gaps remain after these determinations are made, revise any activities that you do not have enough resources to fully implement. Note that if major changes are made to the activities, you may need to revise the timeline for achieving outcomes or the outcomes themselves.
- Outputs. These products of activities are often measured in amounts of something produced or provided. Go back to the activities you listed to identify what each activity will most likely produce. Pay attention to ensure the outputs will be sufficient to lead to the short-term outcomes. Examples of outputs include dissemination materials produced, number of professional development workshops provided, and high-quality instructional materials identified/created.

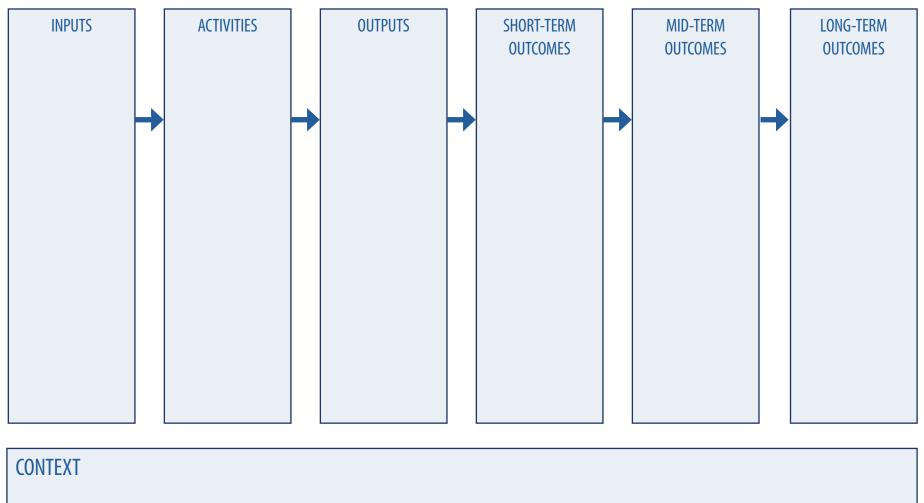
As you create the theory of action, identify potential barriers to successful implementation and indicate how they will be addressed. Determine whether barriers can be overcome by expanding scope (e.g., by acquiring additional resources or partners), minimized by implementing certain activities to manage associated risks, or circumvented rather than eliminated. Explicitly state barriers and develop strategies to meet them to ensure there are no gaps in program theory or implementation.

Lastly, realize that this may not be a linear process. As you work through the parts of the logic model and identify potential barriers, scrutinize the interrelationships and refine as needed.

### Resources

- Bopp, L. (2018). *Building a theory of action to inform school improvement in Nebraska*. REL Central. https://ies.ed.gov/ncee/edlabs/regions/central/blog/theory-of-action-nebraska.asp
- Institute of Education Sciences. (2023). *Aligning Data and Measures to Outputs and Outcomes of the Logic Model*. <a href="https://ies.ed.gov/ncee/rel/regions/west/pdf/AligningData\_and\_Measures\_to\_Outputs\_and\_Outcomes\_LogicModel.pdf">https://ies.ed.gov/ncee/rel/regions/west/pdf/AligningData\_and\_Measures\_to\_Outputs\_and\_Outcomes\_LogicModel.pdf</a>
- Shakman, K., & Rodriguez, S. M. (2015). Logic models for program design, implementation, and evaluation: Workshop toolkit. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <a href="https://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL\_2015057.pdf">https://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL\_2015057.pdf</a>

# **Appendix A: Logic Model Template**



CONTEXT

