District Data Team Toolkit

MODULE 5: ACTION

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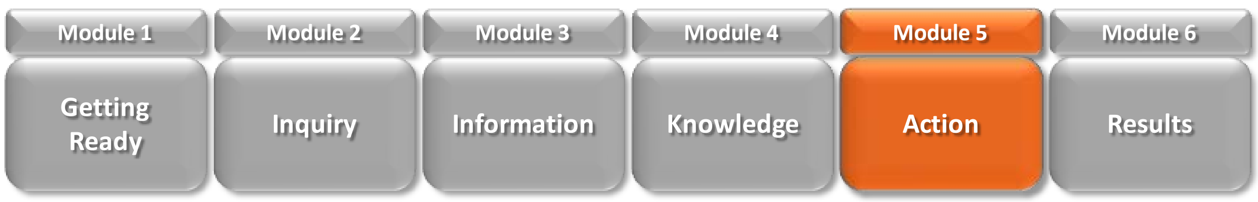
INTRODUCTION

WHERE ARE WE NOW?

The District Data Team Toolkit is based on the Data-Driven Inquiry and Action Cycle. The Cycle provides the structure that takes data use within the district from asking the right questions to getting results. It is an iterative process in which the district acts on data to support continuous improvement. The Toolkit uses the steps of the Cycle to structure a progression through the model—you are now in ***Module 5: Action***.



If a District Data Team has progressed through this Toolkit in sequence, it began by forming a focusing question and presented a data overview related to this question (*Inquiry*). The Team then gathered additional data to answer clarifying questions (*Information*) and identified an area to be acted upon (*Knowledge*). Then it consulted the research literature and local practice to identify one or more strategies to address the identified problems. This module will help the Team craft a logic model that illustrates how and why the strategies will work. It will also help the Team create action plans, if needed, to implement the strategies.

MODULE OBJECTIVES

The **Action** module will help a District Data Team:

- Craft a logic model or theory of action to guide subsequent action and evaluation
- Articulate meaningful measures of implementation and change
- Develop action plans, if necessary, to implement new strategies or to implement existing strategies more effectively

CRAFTING A LOGIC MODEL

WHY DEVELOP A LOGIC MODEL?

Internal stakeholders will want to know what their roles and responsibilities will be in implementing these strategies. External stakeholders must be convinced that the proposed changes are compelling.

Now that the District Data Team has selected the strategy or strategies it will employ to address the identified problems, it might be tempting to move directly to the implementation phase. However, whether the Team identified new strategies or proposed to leverage existing ones, it must be able to justify to internal and external stakeholders how and why the allocation of these resources will have the intended impact on the skills, knowledge, and behavior of the targeted adults and students.

Internal stakeholders, i.e., the district leadership team, central office staff, principals, and teachers, will want to know what their roles and responsibilities will be in implementing these strategies. *External stakeholders,* i.e., the school committee, parents and families, state education agencies, and the public, must be convinced that the proposed changes are compelling, will result in rapid improvement, and will use resources effectively.

A logic model articulates to these internal and external stakeholders, in plain language, the connections among the selected strategies, needed resources, intended outcomes, and desired impact on goals at the district, school, or classroom levels.

Compelling logic models:

- **Show cause and effect.** The model succinctly communicates that *given x strategies and resources, we expect y and z to occur as a result*.
- **Are bold yet achievable.** Taken as a whole, the strategies are likely to lead to "improved results for students, long-term gains in school and school system capacity, and increased productivity and effectiveness" in the targeted areas.[1]
- **Give implementation and outcome measures.** The model describes the changes that the strategies, when effectively implemented, will have on the skills, knowledge, and behavior of adults and students in the system.

COMPONENTS OF A LOGIC MODEL

A typical logic model has the following components:

INPUTS			OUTPUTS	OUTCOMES	IMPACT
Problem Statement(s)	**Strategies**	**Resources**	**Measures of Implementation**	**Measures of Change**	**Goals**

- **Inputs** consist of:
  - A **problem statement(s)** that sets the context.
  - **Strategies** that outline a course of action and answer the question: *what are the specific means, methods, or approaches we will use to solve the problem(s) we identified?*
  - The identification of key **resources** needed to support successful implementation of the strategies.
- **Outputs**, or **measures of implementation**, communicate if the adults involved have implemented key action steps.
- **Outcomes, or measures of change,** communicate if the adults and students involved have acquired and are applying the skills, knowledge, and expertise needed to achieve the goals of the initiative.
- **Impact,** or **goals,** articulates the goal for improvement and long term impact, long-term, sustainable effects the district expects to see as a result of the model.

Each component is explicitly tied to the others. However, it is not necessary to have a one-to-one relationship between items in one column and items in the next. For example, a district may develop a logic model with 3 strategies, 12 essential resources, 5 key measures of implementation, and 3 key measures of change, in order to reach 1 goal.

The resulting model gives the reader a clear sense of how the district perceives the problems it identified, the strategies selected to address those problems, the supports needed to implement those strategies successfully, and the outputs and outcomes that should occur if the strategies are implemented effectively.

BUILDING A LOGIC MODEL

In completing the logic model, the Team does not proceed from left to right, but does a form of backward mapping. The Team begins by naming the problem and proposed solutions, articulates the impact, names the outcomes indicating progress toward that goal, and then returns to the inputs to complete the model. The numbered columns below show the progression:

1	4	5	6	3	2
INPUTS			***OUTPUTS***	***OUTCOMES***	***IMPACT***
Problem Statement(s)	**Strategies**	**Resources**	**Measures of Implementation**	**Measures of Change**	**Goals**

Adapted from: W.K. Kellogg Foundation (2004). *Logic Model Development Guide*. Battle Creek, MI: Author.[2]

1. The Team begins by providing a **problem statement** (or statements)—a brief description of the problem it wants to address, including naming the nature of the problem, the stakeholders who are most affected by the problem, and the suspected cause of the problem, based on rigorous analysis. This statement should be based on rigorous data analysis and/or root cause analysis. It should represent what the Team thinks is the most significant cause(s) contributing to the problem. *What, if addressed, would make the greatest impact on resolving the problem?* It may be helpful to reference specific evidence.

   If the Team has completed *4.1.1T: Writing a Problem Statement,* then its work for this and other sections of the logic model will already be complete.

2. Next the Team articulates the overall **goals** the initiative is intended to accomplish or, stated another way, the impact the initiative will have on the culture of the district, its schools, or its classrooms. This section describes the wishes, dreams, and general vision describing the target, the sustained effects, or consequences the district expects to see over a multi-year period. The Team should seek the support of the superintendent in developing appropriate goal statements because they should align with the district's strategic goals. (These can also be drawn from *4.1.1T*).

3. Having identified the impact of the initiative, the district articulates the outcomes, or **measures of change** (or outcomes) that indicate progress is being made toward those goals. These measures provide evidence of shifts in the skills, knowledge, and behavior of the adults and students targeted by the strategies. They articulate in specific and measurable in terms *what will change, for whom, by how much, and by when.*

   - *For adults*, these measures demonstrate how teachers, principals, and/or district personnel will approach their work differently as a result of the actions taken.
   - *For students*, these measures demonstrate the extent to which the shifts in adult practice are having an impact on their learning and achievement.

   These measures often describe things that can be hard to quantify easily and effectively. Yet well-defined measures can provide a powerful focus for all involved in the effort. As the maxim goes, *what gets measured gets done.*

   The Team should articulate both short- and long-term outcome measures that will demonstrate progress toward the goal, rather than rely solely on data collected once the strategy is fully implemented. A diverse array of measures will provide a richer picture of the effect of the strategy than measures that capture similar evidence. The Team may want to consider collecting outcome data related to the four domains introduced in *Module 1: Getting Ready*—demographics, perceptions, and school (or district) processes, as well as student outcomes.[3]

   The section *Articulating Meaningful Measures* later in this module provides more guidance for creating and refining these measures.

A diverse array of measures will provide a richer picture of the effect of the strategy than measures that capture similar

4. Once the Team has clearly articulated its outcomes, it then goes back to the second column and lists its **strategies**—the specific means, methods, or approaches to solving the identified problem(s). These should represent promising practices drawn from research, local knowledge, and local expertise. Sources should be noted if possible. (These can also be drawn from *4.1.1T* if the Team has completed it).

   Strategies may include:

   - *Policies*, such as student discipline and suspension policies, or those related to developing and retaining an effective, academically capable, diverse, and culturally competent educator workforce.

- *Structures*, such as time in the schedule for common planning or technology and other infrastructure.
- *Systems*, such as the district's method of screening the reading skills of entering students, as well as the many central office processes that support school operations.
- *Curricula*, such as pacing guides, textbooks, and supplementary materials.
- *Instructional strategies*, such as the use of graphic organizers to organize details in a story; grouping strategies; and the use of formative assessments to gauge student performance on a specific skill.

Strategies may range from relatively large initiatives, such as aligning professional development to the district's improvement plan, to small actions, like the use of particular teaching techniques in the classroom. It is important to consider what degree of specificity is needed to address the identified problem, given its size and scope. If the proposed strategy (or strategies) is either too broad or too narrow in relation to the problem it is addressing, it is unlikely to be useful in generating the desired impact. It will also be harder to convince internal and external stakeholders *how* the strategy will address the issues identified.

As stated earlier, a single strategy is unlikely to achieve the district's goals or withstand external scrutiny. Typically a combination of strategies implemented in coordination is required to address the problem statement.

In deciding on the strategies to reach the desired goal, first consider what strategies are already in place, and consider the value of continuing or refining these before creating any new strategies. The *Inventory of District and School Initiatives (Activity 2.2.1)* may be useful for this step.

5. What the Team identifies for **resources** answers the question: *What supports are available to the district or our schools to implement our strategies?* While the most obvious resource is funding, a district's primary resource is its personnel. The Team should consider: *How is the time of teachers, administrators, and support staff throughout the district being used, and how might it be used differently to address the strategy or strategies?*

Other resources include technology, materials, systems, infrastructure, polices, political support, and partnerships with organizations like the Department itself.

In identifying these resources, the Team is making a commitment to allocate them, protect them, and prioritize their use in service of these strategies.

6. **Measures of implementation** (or outputs) communicate how the reader of the plan will know the strategy or its key action steps are carried out and if so, to what extent. These measures generally apply only to the adults in the system, and not to the students. They answer the questions *what will take place, with or for whom, to what extent, and by when?* These measures tend to be more concrete, discrete, and more easily quantified than the measures of change.

The *Logic Model Template* provides a framework for documenting the Team's work. The *Logic Model Checklist* can assist the Team in reflecting on the strength of its logic model and the degree to which it will help drive the work forward.

The next section, *Articulating Meaningful Measures,* provides more guidance for refining these measures.

Activity 5.1 Crafting a Logic Model

These tools will guide the District Data Team in crafting and refining a logic model to guide implementation and evaluation of its strategies.

(5.1.1T: Logic Model Template)
(5.1.2T: Logic Model Checklist)

ARTICULATING MEANINGFUL MEASURES

It is critical that the District Data Team clearly and meaningfully articulate measures of implementation and measures of change, as they will serve a number of functions. For example, these measures–also known as indicators or benchmarks–can be used to:

- Guide and inform the work and subsequent evaluation
- Provide a range of evidence for analysis and triangulation with other data sources
- Inform mid-course corrections, if needed
- Support the ability of the Team to communicate successes and needs to stakeholders on an ongoing basis.

In crafting its measures of implementation and change, the District Data Team is essentially deciding what will be evaluated. Since the measures that are articulated will be used to monitor progress, it is important to articulate only those measures whose evidence will be collected and analyzed.[1] The Team should not identify a measure if the evidence it would generate does not relate directly to an evaluation question.

Well-defined measures can provide a powerful focus for all involved in the

In deciding what to evaluate, and therefore what to measure, the Team might consider:

- What are the questions internal and external stakeholders (including the Team itself) want to have answered?
- How will the information be used, and by whom?

By reflecting on these questions, a Team can narrow the focus and scope to those measures that will best document and communicate progress toward outcomes and impact.

As mentioned earlier in this module, measures of change in particular often describe things that can be hard to quantify easily and effectively. However, well-defined measures can provide a powerful focus for all involved in the effort.

[1] See *Module 6: Results* for more information on the evaluation process.

Measures of Implementation… (Outputs)	**Measures of Change… (Outcomes)**
Answer: *What will take place, for whom, to what extent and by when?*	Answer: *What will change, for whom, by how much, and by when?*
Focus primarily on adult actions	Address both the adults and the students involved in the strategy
Focus on the short term	Focus on the intermediate and long term
Focus on the fairly technical aspects of the work *(such as ensuring all teachers receive a particular training, or that a certain number of students are enrolled in a program)*	Focus on elements that are less tangible, such as the acquisition of skills and knowledge, or the shifting of habits and beliefs *For adults*, these measures demonstrate how teachers, principals, and/or district personnel will approach their work differently as a result of the actions taken *(such as teachers implementing new techniques from a training)* *For students,* these measures demonstrate the extent to which the shifts in adult practice are having an impact on their learning and achievement. *(such as students shifting their aspirations)*
Are used to monitor if things got done Communicate whether implementation of the strategy or strategies is taking place as desired	Are used to monitor if actions are having the intended effects Communicate whether implementation is expanding capacity and resulting in positive outcomes
	Help determine whether particular strategies or initiatives should be continued, expanded, or discontinued On a larger scale, these measures can help prove whether the district's theory of improvement, as articulated in its logic model, is sound and effective
Internal stakeholders are the primary audience, e.g., the Team itself and those directly involved with the action plan	External stakeholders are the primary audience, e.g., other district personnel, as well as the wider community

The Team should articulate short-, intermediate- and long-term measures (sometimes known as formative and summative measures) that span a progression of time and that will demonstrate progress toward the goal.

Similarly, the Team should embed into its work the means to collect, monitor, and evaluate the evidence generated by these measures, rather than waiting until implementation is complete to begin that process. In specifying these measures, the Team is making a commitment to engage with the evidence in an ongoing way to see what can be learned and to make changes to the operating plan in mid-course, if necessary.

For a useful mnemonic device to follow in developing indicators, consider SMART:

- **S**pecific: What are the specific criteria against which the outcome will be judged?
- **M**easurable: What will be the method or tool used to measure progress?
- **A**ction-oriented: Is there consensus among stakeholders that this is a worthy outcome?
- **R**ealistic: Is this outcome sufficiently bold, yet still achievable given available resources, knowledge, and time?
- **T**imed: Does the indicator specify by when the outcome will be achieved?

A diverse array of measures will provide a richer picture of the effect of the strategy than measures that capture the same or similar evidence, and will facilitate self-monitoring and measurement of success in each area.

Evidence for these measures, like other data, comes in a variety of forms. The Team might consider articulating data that represent the four domains of data outlined in *Module 1: Getting Ready*—demographics, perceptions, and school or district processes, as well as student outcomes. Another way to think of it is to consider data that can be counted (such as assessment data), seen (such as classroom observation data), and heard (such as stakeholder feedback).

A diverse array of measures will provide a richer picture of the effect of the strategy than measures that capture the same or similar evidence, and will facilitate self-monitoring and measurement of success in each area. Sample measures include:

- Achievement, assessment, improvement, and percent completion data
- Stakeholder perceptions, such as a survey of teachers, administrators, school committee, students, and/or families
- Self-assessments, such as the Common Planning Time self-assessment or Essential Conditions rubric[2]
- Observation data, such as *Learning Walkthrough* evidence

[2] For more information on these and other district support resources, visit http://www.doe.mass.edu/sda/ucd/ or email districtassist@doe.mass.edu.

- Organizational data
- External review data (such as MASBO or PQA)

For further guidance on crafting meaningful measures, see the attached checklist and resources.

Sample measures include:

- **Measure of Implementation**: By May of 2010, 50 percent of middle school mathematics teachers will have received professional development in developing algebraic thinking. By the start of SY 2010–2011, 95 percent will have been trained.
- **Measure of Change (for adults)**: Within six months of receiving training, 75 percent of mathematics teachers will be observed implementing the material introduced in the training, as evidenced by data collected through *Learning Walkthroughs* and feedback forms completed by instructional coaches.
- **Measure of Change (for students)**: Across the district's elementary schools, the number of students reaching grade level benchmarks for demonstrating algebraic thinking, as measured by a district-wide common assessment, will increase by 20 percent between November 2010 and February 2011.

Activity 5.2 Elements of a Well-Written Measure

These resources can help the Team articulate meaningful measures. The first document is a checklist to guide the creation or revision of a measure. The second resource provides an example of how a measure can be made stronger and more informative, and provides sample scenarios to give the Team practice articulating measures.

(5.2.1T: Crafting Meaningful Measures Checklist)
(5.2.2R: Elements of a Well-Written Measure)

PUTTING IT ALL TOGETHER

Once the Team articulates the six components of a logic model, the resulting document, when read from left to right, represents the district's theory of change—a rationale for what the district believes is the best way to fulfill its mission, vision, and goals. While completing the model can be a long and sometimes difficult process, the result will be increased clarity and agreement on where to focus the time and energy of all involved. A clear logic model can also serve as the basis for evaluation of the district's efforts, which is discussed in *Module 6: Results*.

TAKING ACTION

In developing its logic model, the District Data Team identified a strategy (or, more likely, a set of strategies) that will be used to address the problems it identified. Now the Team is ready to begin taking action.

In some cases, the logic model alone will be sufficient to guide the work and the Team will not need any additional detail. In other cases, an action plan may be useful or even necessary.

WHEN ARE ACTION PLANS NECESSARY?

An action plan is a strategic series of steps designed to ensure that an identified strategy is implemented. For each step, the plan outlines the necessary resources and measures of implementation, as well as an owner who will ensure it is accomplished and a deadline by which the step is expected to be completed.

An action plan can be a valuable resource to:

- Guide the implementation of certain strategies
- Provide a basis for monitoring the progress of those strategies

However, action plans are not always necessary. In some cases, a strong logic model with clear strategies and measures may be all the Team needs to guide implementation and monitoring of the work.

In considering whether or not to craft an action plan, the Team might ask:

- Do action plans already exist for the strategies the Team has identified?
- Would an action plan significantly enhance the district's ability to delegate steps and/or monitor their completion?

Generally speaking, action plans are only required for new strategies or strategies that require changes to function as intended. For example, a district initiating professional development in sheltering instruction for English language learners may need to specify the action steps required to implement the training to make sure it occurs. On the other hand, if walkthroughs were selected as a strategy and the district already uses walkthroughs effectively to observe classrooms, there is no need to develop an action plan for that strategy.

Also, action plans guide strategy *implementation*. However, they do not give any indication of the *effects* of those actions, and therefore are not adequate for monitoring outcomes. This is done by an evaluation plan, which is discussed in *Module 6: Results*.

If the District Data Team determines that an action plan would be a useful tool for the situation it is addressing, it will want to reference the attached documents that describe the components of an action plan and guide the Team in building one.

Activity 5.3 Crafting an Action Plan

These tools will guide a District Data Team in crafting and refining an action plan to guide its work.

(5.3.1T: Action Plan Template)
(5.3.2T: Action Plan Checklist)

MODULE SUMMARY

Module 5: Action builds the capacity of the District Data Team to craft a logic model that provides a rationale for how the strategies it selected to address the identified problems will work. The logic model is the district's rationale and justification for addressing the problems the District Data Team helped identify. It gives an argument for why existing strategies, given some adjustments, and possibly some new strategies as well, will achieve superior results than in the past. Although the Team may not be the primary author or owner of the district's logic model or action plans, it will certainly play an important support role in their creation.

This module also guides the Team on when and how to develop action plans to support the implementation of these strategies.

However, the logic model is only a theory of improvement. Until it is put to use—and rigorously monitored—the Team may find that certain components need refinement in order to achieve the intended results. Perhaps a strategy was not fully implemented according to the timelines set out in its action plan because it lacked a key resource. Perhaps the evaluation data yielded little change in the skills, knowledge, and behaviors of students or adults. The next module, *Results*, guides the Team in creating an evaluation plan that will prepare it to analyze whether or not the strategies have had the desired impact.

References

[1] Race to the Top Executive Summary, p. 2. U.S. Department of Education. Washington D.C. November 2009

[2] W.K. Kellogg Foundation (2004). *Logic Model Development Guide*. Battle Creek, MI: Author

[3] Bernhardt, V. L. (2004). *Data Analysis for Continuous School Improvement.* Larchmont: Eye on Education.

For more information on this and other district support resources, or to share feedback on this tool, visit http://www.doe.mass.edu/sda/ucd/ or email districtassist@doe.mass.edu.