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## GOLDILOCKS DEEP DIVE

# Guiding Your Program to Build a Theory of Change



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# Guiding Your Program to Build a Theory of Change

Theory of change is the foundation of a right-fit monitoring and evaluation strategy. A theory of change provides a road map that outlines how a program will work to change outcomes and deliver impact. It identifies the key assumptions of the program and risks to successful implementation, and helps organizations pinpoint the data they need to collect. When done well, a theory of change should also enjoy widespread buy-in from staff throughout the organization. This helps to focus data collection activities on the most important questions about implementation and impact.

Building a theory of change with solid theoretical foundations and widespread buy-in requires organizations to invest time and resources into a process with multiple steps and participation at all levels of the program.

In this article we outline some of the preparatory work needed to guide a team through the process of building a theory of change and what to expect at each stage. These include the importance of consensus, when to develop a theory of change, the literature review, linking program activities to outputs and outcomes, the importance of considering assumptions and risks, and how to use the theory of change for CART data collection. The principles and processes we describe can be applied both at the organizational level and at the program or project level.

## Defining Terms

We use the following terms and definitions when discussing theories of change.

- **Theory of change:** a map of a program or intervention, connecting program activities with the goods and services it will produce (outputs) and showing how these link to the intended results (outcomes) which measure the program's impact.



- **Assumptions:** the conditions that must be in place for a certain part of a program to work as expected.
- **Activities:** the day-to-day tasks an organization must undertake in order to provide a product or service.
- **Outputs:** the products or services produced by program activities; deliverables. The provision of outputs is typically under the control of the program and is related to the quantity and quality of program implementation.
- **Outcomes:** the intended results of a program; the change it seeks to create. Outcomes are typically outside control of the organization. This where the "theory" comes in; the organization has reason to believe that the provision of outputs should lead to the intended outcomes, but key assumptions will need to hold and outside factors will also influence these outcomes. Often programs will have several linked outcomes they are seeking to achieve.

- **Impact:** the changes the program intends to make. The word “impact” is used in many different ways; we view impacts as the changes a program seeks to make—impacts are the measure of program outcomes.
- **Logical framework/logframe:** a matrix that shows how to measure the theory of change, linking each outcome with the requisite activity and output, identifying relevant assumptions, and laying out key metrics for each.

## When to Develop a Theory of Change

Ideally, organizations begin developing a theory of change when they first start designing a new program. The process of working backward from the impact the organization aims to achieve to the initial inputs can help an organization define the activities needed to run a successful program and examine key assumptions the program is making.

But often organizations develop theories of change after their programs are already operating. This is still a valuable exercise, allowing them to validate the program’s logic, define each step in program implementation, outline the intended results, and make adjustments to the program.

In both cases, a theory of change is often refined over time as the program is implemented – usually in response to the data it helps generate. A theory of change can help organizations at all stages refine and strengthen program activities, delivery, and monitoring and evaluation activities.

## Who Creates the Theory of Change

A theory of change can originate in a number of different places within an organization. For example, senior leadership may want to develop a high-level theory of change to articulate how the organization seeks to create change in the countries where it operates. Or a theory of change may begin in a field office, with staff identifying a local challenge and crafting a plan to address it. Regardless of where the ideas originate, developing a theory of change requires a diverse set of perspectives from throughout the organization.

The team responsible for developing the theory of change should include individuals from key points in the organization. This will bring a variety of technical, strategic, and contextual perspectives to the problem. It will also ensure that the team has a sense of the resources and organizational capability available at headquarters and in the field, and that the views and concerns of staff charged with implementing the theory of change will be represented. It can include representatives from:

- Senior leadership based in the headquarters
- Country office management
- Technical specialists
- M&E leadership
- Program and M&E staff

The team responsible for developing the theory of change should consult with people at multiple levels in the organization. Senior managers may have a “big picture” view of how a program should work, grounded in academic theory or past experience, while field staff see how the program works for participants on the ground and have access to participant perspectives. The process of developing a theory of change should be one of questioning, debate, and learning.

Because this endeavor occurs outside the traditional management structure and involves staff of all levels, care is necessary to ensure that team members feel comfortable sharing their ideas and concerns. Clear guidance and setting realistic expectations should encourage the inclusion of a wider range of perspectives.

## The Process of Creating a Theory of Change

The theory of change development team should define its goals for developing the theory and establish the process it will follow to reach its goals. Some questions to consider include:

- What does the team aim to achieve with the theory of change?
- What will the team produce? By when?
- How inclusive will the team be in developing a theory of change? How will it solicit feedback?
  - Remember that, while inclusiveness will likely aid in creating buy-in, it may also alienate staff whose ideas are not incorporated or who do not feel heard. Thoughtful management is necessary to set and manage expectations.
- Will external parties (such as donors and partners) review and comment on the theory?
- How will progress be communicated? At what point will drafts be shared?
- How will the team work? A facilitated workshop, multi-day retreats, ongoing discussions?
- How will decisions be made? By consensus? By senior leadership? How will the team manage conflict?

## Defining the Problem and Gathering Evidence

The first step in developing the theory of change is a clear statement of the problem that the program will overcome. Before embarking on the process of designing the specific elements of a program, the team leading the theory of change process should review existing evidence and scholarship related to the problem. This should include theoretical work (such as economic, political science, psychology, or anthropology theory) or empirical (past experience that yielded hard numbers). Where published or publically available evidence does not exist, team members can talk to other organizations that have worked in this area to learn about their experiences.

- **Find existing evidence about what you are trying to do.** Organizations like 3ie, Innovations for Poverty Action, and J-PAL may be good resources for seeing what has been done and evaluated.
  - *White papers, systematic reviews, or meta analyses.* Often, academic institutions, NGOs, and think tanks conduct rigorous, structured reviews of the evidence and compile

their findings in a single document. These can be valuable sources of information and provide good starting points for more in-depth research.

- *Academic literature.* Programs operate in complex social environments and are subject to the behaviors and biases of their participants. Behavioral economics, psychology, anthropology and sociology literature may be useful in the literature review.
- **Look at other organizations addressing similar problems, or striving for similar goals.** What did they do? What assumptions did they have? Did they succeed or fail?
- **Conduct field research on the problem the context in which it exists.** This can include interviews with individuals, service providers, shopkeepers, and others. They may provide valuable information about people's preferences, markets, and issues such as accessibility, weather, governance, etc.

The organization should summarize the state of knowledge on the subject and identify what outcomes it should expect to see as a result of the program. Expected outcomes can be rooted in theory (what does the academic literature say about the way a program should work?) or empirics (what have others learned from implementing similar programs?). Considering theory or empirical experience with similar programs or programs relying on similar behavior changes can help organizations design program components, estimate possible effects, and identify key assumptions and risks.

Occasionally, an organization may be onto something very new, about which little evidence or formal theory exists. In this case, where literature is lacking, it may be helpful to build out the review with the business case for the idea instead. The business case would be developed by the theory of change team, with input from other relevant staff in the organization, and would include:

- An assessment of the demand for the new product or service, including any third-party benefits it can be expected to produce
- A market analysis and marketing plan
- A financial viability assessment
- The viability of delivering the product or service in the specified context
- How the product or service fits with the organization's mission

## Establishing the Components of the Theory of Change

After completing a literature review and clearly defining the problem, the team developing the theory of change should work backward through its components. This should be a participatory process, involving input and feedback from staff members throughout.

**1. Define the intended outcomes:** the results an organization hopes its program will achieve.

- Drawing on their analysis of the problem and evidence from the literature review or field research, the team should develop a set of outcomes it intends to pursue. These should fit with the organization's mission and capabilities, or reflect new capabilities to be developed.
- Outcomes should be well-defined and specific.

- Counterfactual evaluation is almost always required to measure outcomes.

**2. Identify program outputs:** the products or services produced by program activities.

- Given the desired outcomes and organization's capabilities, identify what must happen for these outcomes to occur. Consulting both program staff and the theory and empirics identified in the literature review are key—they will help link the theoretical with what may be reasonable in a particular context.
- Fleshing out assumptions is critical in this stage, because they connect the things the organization can control (outputs) with the changes they should produce that are outside of the organization's control (outcomes).
- Outputs should be specific and measurable, and can be tracked through activity monitoring.

**3. Define program activities:** the regular tasks required to address the problem.

- The team should choose activities that are within its capability to successfully implement and will result in the required outputs. The contribution of technical experts, country office management, and field staff will be particularly valuable in this step.
- Program activities should be clearly specified and can be tracked through activity monitoring.

**4. Map pathways between components:** visually assess the logic behind the story.

- Once the activities, outputs, and outcomes have been identified, the team should identify the connections between them. This will illuminate gaps in the logic and identify extraneous activities.
- Critical points in the program theory exist where multiple arrows intersect – these parts of the theory *must* hold for the program to work.
- The monitoring strategy should focus on these key points.

**5. Identify assumptions underlying the model:** for each link between activity and output, and output and outcome, identify assumptions that must hold if the program is to work as expected

To identify assumptions in the theory of change, the team should ask itself a number of questions:

- What assumptions underlie the causal links we have identified? If successfully delivered, why do we expect this output? What must happen for this activity to have that result?
- Why do we think people will respond in this way? What motivations, preferences, and constraints do they face?
- What assumptions are we making about the cultural, political, and economic context?
- Do we have the capacity to implement this activity? What could negatively affect this capacity?

This will likely result in a long list. The team should identify the assumptions that are most critical for successful implementation or for achieving desired outcomes, and those that have the highest risk of being wrong and leading to failure. This will allow consideration of ways to reduce the risk,

mitigate the consequences, or rethink the design. It will also help identify key components for careful monitoring.

**6. Identify risks that threaten the model:** factors beyond the organization's control that can affect program outputs and outcomes. These may be:

- **Environmental:** policy changes, draught, flooding, conflict, and economic shocks can all derail a program.
- **Behavioral:** beneficiaries may not respond in the expected ways.

The literature review, staff consultations, and field research will help organizations identify these risks and develop strategies to deal with them.

Another way to identify risks is to create a “theory of failure.” Assume that the program failed to achieve certain outcomes—why? It is possible to use fault trees to identify paths to failure, or ask staff to imagine the program failed and offer potential reasons for it.

## Using a Theory of Change for Data Collection

A theory of change is critical for thoughtful program design, but it is also foundational for a right-fit monitoring and evaluation system. The theory of change helps organizations prioritize what to measure and helps ensure credible data collection and analysis. The theory of change also helps ensure responsible data collection and transportability by laying out an explicit story about how a program works.

- **Credible:** A theory of change requires that all activities and program goals are clearly defined, which helps an organization to determine what data they need to collect. By differentiating between outputs and outcomes, the theory of change allows for better assessment of what can be measured through monitoring (outputs), and what requires a counterfactual impact evaluation to assess (most outcomes).
- **Actionable:** A theory of change helps organizations focus on tracking the most critical components of the program, such as the outcomes fed by the greatest number of outputs. By being explicit about assumptions and risks, organizations can identify opportunities for learning.
- **Responsible:** A theory of change helps an organization determine if a program makes logical sense and is built on previous research and knowledge—without this assurance, neither implementing the program nor collecting data on it is a responsible use of resources.
- **Transportable:** By laying out all activities, outputs, expected outcomes, and assumptions, a theory of change provides a detailed roadmap of how a program works. It can help an organization replicate the program elsewhere. A theory of change can also help others asking similar questions or working in similar contexts in developing their own theories of change.

For a theory of change to support learning and program improvement, individuals throughout the program or organization should be familiar with it—understanding the roadmap it lays out, the

assumptions it makes, and how they can use it to support and strengthen their work. This does not happen magically on its own. Rather, dissemination of the theory of change to interested individuals—from field staff and M&E officers, to program managers and senior leadership—is a deliberate process.

To ensure widespread dissemination and use of the theory of change, managers must share the theory of change with their teams, presenting it as a guidance document that will evolve as the program progresses. Program staff should discuss how it will be used, including: developing data to be collected on program performance, coming up with evaluation research questions, and designing a similar program in another country. The theory of change should be discussed in program orientation, figure prominently in program documentation and M&E plans, and undergo revision as programs are reviewed and grants are renewed. When a theory of change is located at the organizational level, it should be reviewed regularly as part of the strategic planning process.



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