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Theory of Change

TECHNICAL PAPERS

A Series of Papers to Support Development of Theories of Change Based on Practice in the Field.

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Helping You Create Social Change

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1. What is Theory of Change?

This section defines the approach known as “Theory of Change” as well as the product of that approach, which is the roadmap for an initiative. The basic structure of a ToC is illustrated.

Basic Definition

At its heart, Theory of Change spells out initiative or program logic. It defines long-term goals and then maps backward to identify changes that need to happen earlier (preconditions). The identified changes are mapped graphically in causal pathways of outcomes, showing each outcome in logical relationship to all the others. Interventions, which are activities and outputs of any sort, are mapped to the outcomes pathway to show what stakeholders think it will take to effect the changes, and when. Theory of Change provides a working model against which to test hypotheses and assumptions about what actions will best bring about the intended outcomes. A given Theory of Change also identifies measurable indicators of success as a roadmap to monitoring and evaluation.

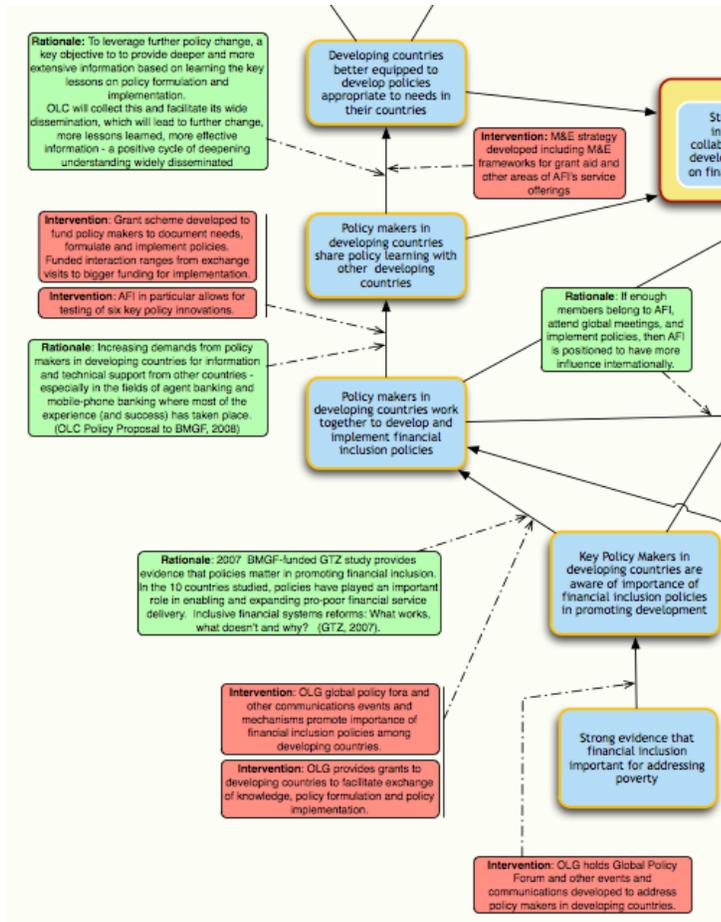
Theory of Change is both process and product: the process of working out the theory, mainly in group sessions of practitioners and stakeholders led by a capable facilitator; and, as the product of that process, a document of the change model showing how and why a goal will be reached. There is a good deal of discussion as to which provides more value—the group process of reflecting on the work, surfacing assumptions, creating transparency and building consensus; or the product, a sound and complete plan with plausible potential for producing the change desired.

Theory of Change as Used for Planning and Evaluation

As a planning tool Theory of Change helps organizations ask important questions about their work. It can strengthen partnerships, support organizational development, and facilitate communication. Theory of Change originated as an evaluation tool, and as such it explains the pathways of change that lead to the long-term goal and the connections between activities, outputs and outcomes that occur at each step along the way. The clarity of purposes, results, and strategies that Theory of Change delivers sharpens interventions and evaluation designs and strengthens the ability of practitioners to take credit for outcomes that were predicted in their theory.

Outcomes Pathway: ToC’s Basic Structure

The outcomes pathway is a set of graphically depicted building blocks ordered and connected through a causal chain. Outcomes along the pathway are also preconditions to outcomes above them. Thus early outcomes must be in place for intermediate outcomes to be achieved; intermediate outcomes must be in place for the next set of outcomes to be achieved; and so on. An outcomes pathway therefore represents the change logic and its underlying set of assumptions, which are spelled out in the rationales given for why specific connections exist between outcomes, and in the theory narrative.



Theory of Change turns conventional planning on its head because it pushes groups to first work out their goals or desired impact and work backwards on outcome pathways rather than engage in conventional forward oriented “so-that” reasoning. As an example of so-that reasoning, a grantee decides to increase media coverage on the lack of health insurance among children *so that* public awareness increases *so that* policymakers increase their knowledge and interest *so that* policies change *so that* more children have health insurance. In Theory of Change, by contrast, the group begins not with its intervention but with its long-term goal and outcomes and then works backward (in time) toward the earliest changes that need to occur. Only when the pathway has been developed is it time to consider which interventions will best produce the outcomes in the pathway.

Snapshot of the Process of Creating a Theory of Change

An important first step in the process is identifying a workable long-term goal and outcomes. The long-term outcome should be something the initiative can realistically achieve and that everyone involved understands. A trained external facilitator is best to lead the group to consensus and specificity in this process. Once identified, the group then considers, “What outcomes must be brought before we can achieve the long-term outcome?” These outcomes—shorter term preconditions to the long-term outcome—are then placed directly underneath the long-term outcome. The process continues, drilling down the pathway by posing fundamental questions, such as: “What has to be in place for this outcome to be achieved?” and “Are these preconditions sufficient for the outcome to be achieved?”



In these sessions, participants may use markers, sticky notes, and chart paper to identify and organize outcomes, surface assumptions, develop indicators, and so on. The messy group work is then usually captured by the facilitator in digital form, where the content can be expanded, edited, printed, shared, and otherwise managed as the theory continues to be developed.

Moving to Monitoring and Evaluation

Testing theories of change through monitoring and evaluation can furnish powerful evidence of the success or failure of initiatives. Coupling monitoring and evaluation to Theory of Change can bring a better understanding of how to improve the design and implementation of ongoing initiatives, and how to scale initiatives up or out.

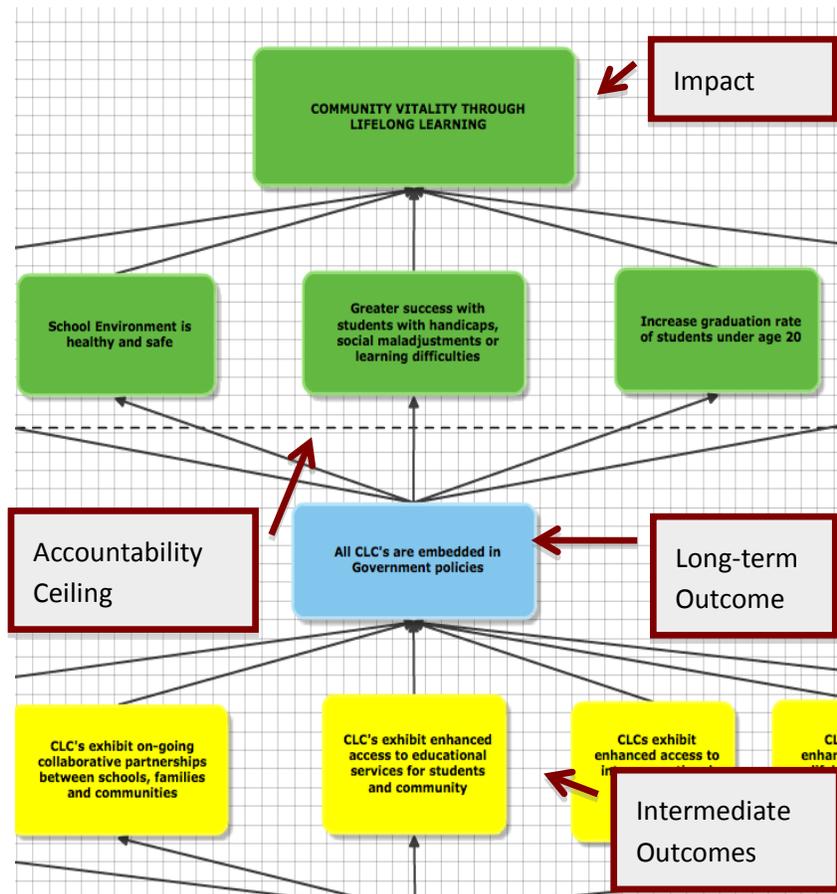
Theory of Change can begin at any stage before, during, and after the lifetime of an initiative, depending on the intended use. A theory is developed at the outset is best at informing the conceptualization and planning of an initiative. As monitoring and evaluation data become available, stakeholders can periodically refine the Theory of Change based on evidence. A Theory of Change can also be developed retrospectively by reading program documents, talking to stakeholders and using monitoring and evaluation data. This is often done during evaluations or for a reflective process of learning about what has worked and why, in order to understand the past and to plan for the future.

2. Basic Components of a Theory of Change?

This section explains and illustrates the basic elements in a theory: outcomes, indicators, rationales, interventions, assumptions, and narrative.

Outcomes and Pathways

A Theory of Change models **outcomes** in an **outcomes pathway**. Outcomes in a Theory of Change represent changes in condition of some kind – whether a policy, law, behavior, attitude, knowledge, state of the environment—among people, institutions, and environments. Outcomes are the building blocks of a Theory of Change. An outcome is never something like “distribute fliers to all residents”, or “immunize children”. However, “all children are immunized” may be a valid outcome.



Outcomes include Long-term Outcome, and Intermediate/Short-term Outcomes. The term “impact” is often reserved for the ultimate goal of an initiative, but is not a measurable outcome of that initiative alone. For example, if an organization works to provide job training, education programs, and career counseling, it may be that the ultimate reason for doing this is to create sustainable family incomes and reduce poverty in the community. It was the reduction in poverty that drove the initiative, but the organization may not be directly accountable for reducing poverty. What an organization usually decides to be directly accountable for is the Long-Term Outcome. This is a clearly stated, focused, measurable and plausible goal for the initiative.

The Impact level is distinguished from the long-term outcome and its preconditions by an “accountability ceiling,” which may be drawn in the form of a dashed line as shown here. The accountability ceiling can be moved up or down as the group developing the ToC gathers more knowledge about the opportunities and limits of the work. Add more partners, and perhaps a higher target can be reached. Conversely, lower the ceiling if it becomes evident that many systemic factors are

at play upon which there is little control, and focus on what can be done. In the example above, the accountability ceiling has been moved down one level, leaving two levels of impact and outcomes (coded green).

All outcomes needed to get to the Long-term Outcome in an outcomes pathway are preconditions to the Long-term Outcome and the Impact. **Preconditions** define what has to change if the ultimate goal or impact is going to be achieved. Preconditions (which are also outcomes) are mapped backwards in pathways from the Long-term Outcome to the present and the near future.

Indicators

Every outcome (and preconditional outcome) in a Theory of Change needs to be observable in some way. Stakeholders, evaluators, funders, constituents... all need to know whether an outcome has been reached. **Indicators**, which refer to measurable and observable phenomena, furnish the evidence of achievement. Stakeholders choose the best indicator(s) for each outcome, often with the help of their evaluator. An indicator may be quantitative (e.g., number of new jobs created) or qualitative (a description such as new characteristics of a community). For every indicator, the group (and evaluator) identify four elements: 1) Who or what is going to change? 2) How many of them will change? 3) How much will they change? and 4) By when will the change be realized? So, in the sentence “Eighty percent of fourth graders will read at grade level by the end of the second year of the program”, the indicator itself may be reading test scores, the “who” is fourth-graders, the “how many of them” is 80 percent, the “how much will they change?” is being able to read at grade level, and the “by when” is at the end of two years of the program.

Interventions

Once the outcomes framework is complete or at least connected in rudimentary pathways, it is time to identify and explain **interventions**. Interventions are the work undertaken within an initiative or program undertake that lead to the desired outcomes. In a Theory of Change, the term “intervention” may refer to single activities or whole programs, depending on how specific the group wants to be and how they want to use the theory with respect to a strategic plan or theory of action. Mapping interventions to the outcomes pathway has the effect of revealing strategy: it shows the theoretical linkages between actions and results all along the way.

Interventions can be located on an outcomes framework by means of symbols positioned along the connectors between the outcomes, illustrating that the intervention can begin once Outcome A is realized, and that its successful completion is necessary to producing Outcome B. The logic for placing an intervention is as follows: Outcome A sets up the conditions that allow Outcome B to unfold. Nevertheless, Outcome A (and other outcomes in the same phase of work) may not in itself be sufficient for Outcome B to transpire. Therefore, to achieve Outcome B, we need intervention #1. The intervention, or symbol for that intervention, is placed on the connector between Outcome A and Outcome B.

An organization will likely discover that some current interventions are not aligned with the Theory of Change. This raises challenging questions about whether to continue with activities that cannot be shown to contribute significantly to the outcomes in the theory.

Rationales

Rationales explain the positioning of outcomes within a theory of change: i.e., the reasons why a given outcome is dependent on one or more other outcomes, or “preconditions”.

Assumptions

One of the many important and valuable aspects of Theory of Change is in challenging stakeholders to make explicit the assumptions (and risks) inherent in an initiative. The process of identifying clear outcomes and their preconditions involves an elaboration of the reasons why the group thinks the theory will work in practice. **Assumptions** may be based in the empirical knowledge of expert practitioners or in research evidence. Assumptions come in at least three forms:

1. The causal framework of preconditions and activities leading to long-term outcomes and impact represents a set of assumptions that underlie the choice of preconditions and the order in which they appear in the pathway.
2. The specific relationships drawn between outcomes in a pathway rest on assumptions. Assumptions of this type may relate to why the group thinks one outcome is a precondition to another. They may also relate to the specific choice and placement of activities within a causal pathway. Assumptions of this type are implicit in the diagram but are best made explicit through articulation. ActKnowledge terms assumptions of this type as “rationales.” Rationales explain the logic of specific outcome-precondition relationships and/or the logic of why specific activities are needed at given points of the change process.
3. Assumptions may be made about the context or environment within which the initiative will operate. Assumptions of this type involve beliefs about conditions that exist in the context/environment which are critical to the theory. As an example, proponents of an employment training program may assume jobs will be available in the occupations for which people are being trained. If that assumption should prove false, then the goal of getting people into good jobs will not be met. Assumptions of this type are best made explicit as preconditions within the pathway: in this example, “jobs are available” as a precondition will test that assumption.

Assumptions of all types are implicit in the arrangement of outcomes in the pathway, and should also be made explicit, giving rationales for specific causal connections, and in writing the narrative.

Exposing assumptions involves a certain risk. Programs often fail by one or more measures. Theories of change make the expected how and whys of change processes explicit, and the clearer one can be in outlining a change process, the greater the risk that failures can be attributable to the initiative. In more traditional approaches to social change, the work has rested on its moral value rather than on measures of effectiveness. Failure in these cases is both more likely and less attributable to the philanthropic effort. Without a clear change model, results are abstracted from the specifics of the initiative; results are not monitored, and failures and successes cannot easily be tied to the effort. With theory-based initiatives, the specifics are all laid out, results are measured, and failures are easier to identify and evaluate. The more explicit the theory, including all its assumptions, the more failure can be tied to mistaken assumptions. Despite this risk, Theory of Change increases the chance of sustained success. Failure in reaching goals is almost guaranteed in the absence of a clearly developed model of change. Failures in the context of a Theory of Change can be opportunities to learn from the experience, recalibrate, and return to the field with more effective interventions.

Theory of Change allows proponents and stakeholders the means to continually challenge their assumptions and, in doing so, refine and sharpen their strategies for greater success. In considering a given outcome, one might ask “What would happen if this outcome does *not* come about?” If its absence leaves a hole in the logic, or points to a “missing middle” where the outcome pathway seems to take a leap over necessary steps, you will have identified a gap in the model. You will need to work to understand and identify what is necessary to fill in the missing steps.

Narrative

The **narrative** is a summary of the theory that explains the overall logic, highlights major assumptions, and presents a compelling case as to how and why the initiative is expected to work. The purpose of the narrative is twofold: (1) to convey the major elements of the theory easily and quickly to others; (2) to communicate how the elements of the theory work as a whole. The narrative is natural companion to the visual elements of the theory as they reinforce each other.

3. Knowing Your Purpose: Setting the Scope, Process, and Representation

This paper examines the potential for tailoring a Theory of Change to the purpose for which it will be used. Any complete ToC can be customized to suit multiple purposes once the basic outcomes pathway is agreed upon

Three Basic Purposes and Times for Theory of Change

While it has been most common to develop Theory of Change of existing initiatives for evaluation, and increasingly popular to use Theory of Change to plan new initiatives, there is a middle ground. Many organizations with programs that have been operating for years want to develop a Theory of Change to help them understand and possibly change what they do. In such cases, organizations want to revisit long-term goals and challenge their assumptions about what is needed to reach those goals. Here then are the three basic applications of Theory of Change:

- evaluation
- conceptualizing and planning initiatives
- revisiting goals, assumptions, and activities of an existing initiative (especially if things seem to be not going as well as hoped).

Organizations may have other reasons to develop theories of change, but these will be sub-categories of the three basic applications of the method. For example, moving an existing strategic plan into a Theory of Change belongs to the third basic use, that of revisiting the goals, assumptions, and activities of an existing initiative.

Different Purposes/Different Audiences

Theory of Change has a number of uses: communication to partners and funders, building core capacities, delineating relationships among partners, strategizing influence on “boundary” partners, planning outcome-based activities, and clarifying monitoring and evaluation priorities. These several purposes guide choices on the focus and scope of the Theory of Change. As a communication tool, the key elements are the outcomes pathway and the narrative. The outcomes pathway as communication tool should be crisp, colorful, and not too detailed. The connecting arrows between preconditions, so helpful in clarifying how different change trajectories relate to one another, can be difficult for an outside audience to follow. The causality can be abstracted from individual connecting arrows to a general



sequential flow represented by something figurative, such as a tree. Detailed Theory of Change diagrams are often turned over to a communications group within organizations to be repackaged for communication purposes. Often the box-and-arrow diagram is simplified into a logic model format. The reader can readily grasp the logic and flow without having to trace lines of causality. In other cases graphic designers tell the story in other ways—for example, in a narrated slide presentation where outcomes fall into place sequentially as the building blocks of a pyramid, as in the iceberg image above. This presentation can be viewed here <http://www.youtube.com/watch?v=YJSMa7AA3cU>.

The narrative is the other essential communication tool. In the slide example above, the pictures are accompanied by voice narration. Narratives are usually written out. In either case, to communicate effectively, graphic representations and verbal explanations work together to build understanding (and buy-in.)

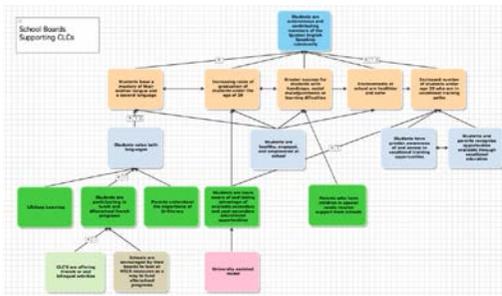
Matching Scope with Purpose

The scope of any outcomes pathway will resemble one of the four basic types, as follows:

Narrow and Shallow (least detail)	Broad and Shallow
Narrow and Deep	Broad and Deep (most detail)

Narrow and shallow pathways show the least amount of information. This scope identifies relevant preconditions to the long-term goal, but not all necessary preconditions. Usually it focuses “narrowly” on those preconditions which the initiative can address directly. For example if a long-term goal is employment, a narrow scope may only identify the skill-related preconditions to employment and not identify things like available child care, stable lives, or attitudes that may be necessary for people to get and retain jobs, but that are outside the purview of the initiative. Similarly, the pathway is “shallow” in that the pathways are not drilled down to the beginning (where the initiative would start); and perhaps multiple outcomes are summarized for simplicity. This type of pathway is useful as a summary of a project or an evaluation.

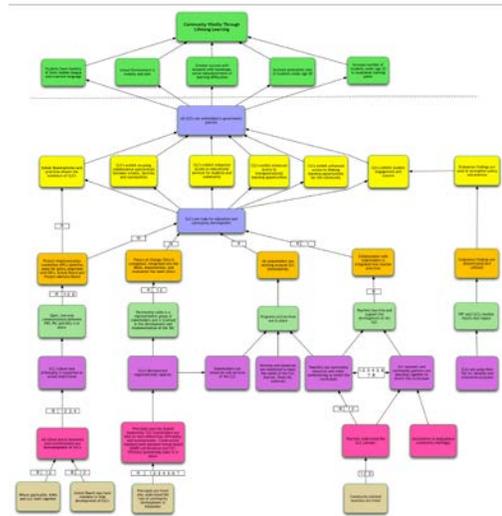
Narrow and deep pathways, like narrow and shallow pathways, develop only that part of the pathway that is most central to the organization’s work. The narrow and deep pathway, however, drills deep so that that every intermediate outcome is identified. This scope provides enough detail for the initiative to make decisions within the narrow pathway it identified, and leaves out any parts of the pathway it does not control. The narrow and deep scope may be appropriate for an initiative that relies relatively little on partners or on influencing other actors in the arena, or for single small programs.



In *Broad and shallow pathways*, as shown at left, all preconditions to the long-term goal are identified, including

those not within the expertise and influence of the proponent organization, but the pathway is not drilled deeply. A shallow pathway paints goals with a broad brush and leaves the granular preconditions for others to define. A good match for this type is the funder that seeks to drive change toward particular goals. This funder recognizes that there may be many routes to those goals and leaves it to the grantees to try out and demonstrate the effectiveness of various alternatives.

Broad and deep pathways are the “Cadillac” of Theory of Change. Pathways of this scope identify all the preconditions to change, and drill the pathways deeply enough to identify necessary preconditions at all levels. This scope provides a level of detail that allows for the most organizational learning and strategy development, and a finely honed evaluation that can sort out what is really happening. The breadth of the pathway can be contingent on partner relationships. Sometimes certain outcomes or pathways are left to one side of the diagram and grayed out. Such outcomes are necessary to the long-term goal but are beyond the capacity of the proponent organization to carry out or are beyond the scope of the initiative. In cases where partnerships resolve the question of who will carry out such necessary work, the outcomes pathway can be relatively broad, if not deep, so as to represent the work of the different partners in cooperation and in making distinct yet necessary contributions to a long-term goal.



Deciding and Illustrating Partner Roles

As a tool for delineating relationships among partners, the activities component of the theory needs to be well articulated. Whereas, with communication, program activities may be rendered more simply as inputs into the system; in delineating partner relationships, the activities are the key. Activities as a ToC component describe the actions thought necessary to bring the desired outcomes. The question in partnerships is about what the various partners will contribute to the effort. One provides conceptual leadership, funds, and convenings; another provides services; a third provides sites and technical support; and so on. These activities need to be inserted into the outcomes pathway along connecting arrows to show at what points in the project they are thought to be needed.

Using Theory of Change to Map Capacity

Closely related to this use of Theory of Change in delineating partnerships is its use in specifying core capacities. Whereas the tendency in the ToC approach is to focus on changes in people, institutions, and environments; as a core capacities planning tool the focus must be on the skills, funds, resources, and other inputs needed to undertake the planned activities. In many such cases organizational capacity is handled in a separate outcomes pathway. The method is the same: outcomes mapped backward in causal sequences from long to short term, but the outcomes are capacity outcomes; and the activities mapped to the pathway involve resource procurement, putting information management systems or cooperative agreements in place, organizational structure, and (of course) inter-organization partnerships and the comparative core capacities that the different partners bring to the effort.

Boundary Partners

Theory of Change can be effective at modeling expected or desired impacts on the behavior of others. Sometimes called “boundary partners,” these others would be actors in the environment who need to be influenced favorably if the project is to be sustained. In an antipoverty effort, for example, the proponent may demonstrate their model at selected locations. To be sustained over the long-term, the proponent must convince other actors of the model’s efficacy—state actors, non-government organizations, for-profit organizations, and others. In this use of Theory of Change, the focus is not on defining (as outcomes) the conditions in the environment that must change to reach a long-term goal.

Rather, the focus is on defining who these partners are, the levers by which one can influence their behavior, and the means of pushing on those levers.

References

Clark, H. (2012). Theory of Change: Value added and complementarity with Results-based Frameworks and Scorecards. New York: ActKnowledge technical paper.

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4. A Good-Quality Theory of Change

A Theory of Change will lead to success only if it meets the rigor and specificity of core standards. Many claims to “Theories of Change” do not refer to a product that meets core standards. This section explains the standards and criteria by which to judge “good quality” in Theory of Change.

Quality Review Criteria

One of the most common questions, with both facilitators and organization staff, is whether they have done it “right”, and how can they know if their Theory of Change is a good one? The accuracy of the theory will be borne out over time, through ongoing learning and evaluation. However, making sure that the Theory of Change established initially is as thorough and specific as possible will increase the chance of attaining the desired outcomes.

In the early days of Theory of Change, Anne Kubisch and others (Kubisch 1997) established quality control criteria. These are:

- Plausibility
- Feasibility
- Testability

Plausibility refers to the logic of the outcomes pathway. Does it make sense? Are the outcomes in the right order? Are the preconditions each necessary and collectively sufficient to reach the long-term outcomes and ultimate impact? Are there gaps in the logic?

Feasibility refers to whether the initiative can realistically achieve its long-term outcomes and impact. Does the organization have adequate resources? Does it need partners? Does the scope, expectations, or timeline of the theory need adjustment?

Testability refers chiefly to the indicators: Are they solid and measurable? Will they yield sufficient information to make course corrections, and to evaluate the success of the initiative? Will they be convincing to necessary audiences?

A good way to test the theory on the plausibility criterion is to talk through each connection. If one stumbles in explaining it, or notices leaps of faith (e.g., good teachers will lead to good grades), most likely some preconditions are missing.

The test of feasibility is whether the organization or partnership is capable of carrying out the activities identified on the pathway. This test is enhanced through a thorough airing of the assumptions that go into the theory. Any project is rife with assumptions: the strength of Theory of Change is in encouraging participants to make their assumptions explicit. Giving rationales for causal connections on the pathway gets at the more specific assumptions around causality from one outcome to another. One can also articulate rationales for the specified activities. If the activities are

both necessary to the desired outcomes and feasible to conduct, then the theory should be deemed feasible.

“Testability” derives from Theory of Change’s roots in evaluation, where Theory of Change continues to focus evaluation resources on answering whether an initiative’s activities are achieving the results it set out to achieve. It is in the effort to specify indicators that the testability of the theory is demonstrated. Even for the many ToCs that are developed for strategic planning or communication or other purposes beyond evaluation, the stronger theory will be the one with precise outcome statements that can be matched with accurate indicators. Ultimately, a testable theory is one in which any of its component parts--an outcome, an activity, or an assumption--has some piece of evidence to demonstrate its veracity. As in many aspects of Theory of Change, there is a valuable reciprocity in the relationships between component parts: output-outcome, rationale - outcome, outcome-indicator, and so on. Developing indicators helps to refine thinking about the outcomes. Conversely, refining or further defining of an outcome brings insight about its associated indicators, activities, and rationales. As in any reciprocal system, working on one part informs the understanding of its companion parts.

The Right Scope is Important

In addition to the three basic quality criteria above, ActKnowledge has added another: Appropriate scope (Clark, 2004). An actionable theory that can be communicated to the key audiences is dependent in part upon choosing the right scope (see *Knowing Your Purpose*).

Usability Within the Organization

The characteristics above speak to the rigor and standards for the theory itself. Another measure of a good theory, often neglected, is its usability within the organizational culture. A good theory in this sense has:

- Buy-in and support from leadership and decision-makers for using the theory as the basis for planning, team-building, monitoring and evaluation, and communication over the life of the initiative.
- A core group of people (2 or 3 is enough) who “own” the theory. They make sure the theory is graphically understandable, make changes as needed, and take charge of the ongoing learning.
- A flexible and usable modality for storing and changing all the information in the theory— e.g., can outcomes in the pathway be easily moved around and modified? Can assumptions be added? There are a variety of tools that can be used for storing, editing and sharing ToCs. Theory of Change Online is user-friendly and sharable. DoView drawing software can be purchased and downloaded. Flowchart software such as Microsoft Visio or OmniGraffle have powerful drawing capability but do not easily store all of the rationale, assumption, narrative and indicator data.
- Strong connections to all the other systems in place for strategic/action plans, budgeting, and monitoring and evaluation.

A good theory is not necessarily entirely “right”. Grounded experience, changing contexts and lessons should bring continuous refinement to get closer and closer to a conceptual model that

brings success. A good theory provides the logic and specificity needed for the ongoing learning that will make the theory ultimately “right”.

References

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5. Linking Theory of Change with Monitoring & Evaluation

This paper briefly explains how to use one's Theory of Change to establish measurable indicators and move to monitoring & evaluation, including adding value to tools such as Results Frameworks.

Desired versus Actual Outcomes

A key point about outcomes in a Theory of Change context is that there are intended outcomes and actual outcomes. It is the intended outcomes that appear in the Theory of Change diagram, modeling the outcomes in pathways that show an underlying causal logic and thereby reveal the assumptions inherent in the theory.

The theory is not modeling the actual outcomes. We hope what actually happens closely resembles the outcomes forecast in the model. The innovation of Theory of Change lies (1) in making this distinction between desired and actual outcomes, and (2) in requiring stakeholders to model their desired outcomes before they decide on activities, tactics, strategies, and other forms of intervention. This approach allows practitioners to make choices within an outcomes frame of reference so that the activities can be chosen for their potential to achieve the initiative's outcomes.

The task of monitoring and evaluation is to determine whether and in what ways the actual outcomes of the work reflect the outcomes forecast in the Theory of Change, and whether the assumptions underlying the theory about what will work were correct. If the initiative succeeds, having a Theory of Change behind it lends support to attribution. Success also confers predictive power on the theory, making it useful to any effort to replicate or scale up.

Indicators

The ultimate success of any Theory of Change lies in the achievement of outcomes. Evidence of success confirms the theory, reflects credit on the initiative and brings prestige to the proponent. Therefore, the outcomes in a Theory of Change must be coupled with indicators that allow measurement. Indicators (see panel at right) may be said to operationalize the outcomes—that is, they render the outcomes in concrete, observable and/or measurable terms. The relationship of indicator to outcome can be confusing and may be clarified with this simple formula “I’ll know [outcome reached] when I see [indicator].” For example, “I’ll know that teenagers in the program understand the prenatal nutrition and health guidelines when I see program participants identifying foods that are good sources of nutrition.”

ability to demonstrate progress on the

What are the Characteristics of Indicators?

The following questions must be answered about each indicator:

1. **What** will be affected?
(Indicator)
2. **Who** will be affected?
(Population)
3. **How many** will change?
(Target)

Ideally, every outcome on the outcomes pathway (below the dashed accountability ceiling) should have an indicator, but available resources often make that difficult to do. Many groups want to designate priority outcomes—that is, outcomes they know they need to measure if the theory is going to hold. These are the outcomes which must be operationalized (that is, made measurable by one or more indicators.) At a minimum, every outcome for which initial interventions will be designed should have at least one indicator.

Developing Evaluation Questions

Evaluations usually begin with evaluation questions. At the least, Theory of Change helps to frame the evaluation questions by clarifying how particular activities are expected to produce particular outputs and outcomes. For some evaluators a robust Theory of Change may obviate the need for evaluation questions: The theory itself guides the evaluation approach. In cases of complex theories cutting across different domains and scales of work, posing theory-based evaluation questions may help focus evaluation efforts on key concerns. As well, there may be a need to pick the right indicators from among the many available, and one can use “monitoring questions” to select the indicators that will be most helpful and expedient. The monitoring questions take the form of “What do we really need to know in order to manage grant-making directed to the achievement of this outcome?”

Just as development of a Theory of Change is a participatory process, a ToC-based monitoring and evaluation system can be designed in a participatory way. For example, grant managers can be involved in choosing the outcomes of greatest interest to them in their decision-making. Similarly, people on the ground can have input into which indicators to use and how to operationalize them, choices of instruments and methods of data collection, and which existing sources of data may be used in tracking indicators.

Relationship of ToC to Results Frameworks

Many organizations including the Rockefeller Foundation have used a Results Framework and companion Scorecard as management tools. The Results Framework is complementary and adaptable to a Theory of Change-based monitoring and evaluation system. The framework gives the appearance of being derived from a well-thought-out conceptual model, but in fact the conceptual model may be lacking. Results Frameworks do not show causal connections between conditions that need to change to meet the ultimate goals. The added value of Theory of Change lies in revealing the conceptual model, including the causal relationships between and among outcomes, the relationships of activities to outcomes and of outcomes to indicators. Overall, having a Theory of Change helps make explicit the assumptions upon which the Results Framework is based.

Evaluation Against a Theory Can Illuminate Three Error Types

Evaluation can find either success in meeting targets or it can identify one of three types of error that account for not meeting goals. Theory of Change allows the evaluator to test each of these:

1. Targets were not reached because implementation was not done in the way specified in the theory as necessary to reach the outcome (testing fidelity of implementation.)
2. Targets were not reached because an assumption the theory was based on was false, or the situation changed, rendering the assumption false (therefore it is critical that evaluation not just measure outcomes, but also test assumptions.)

3. Targets were not reached because the theory itself was incomplete, not specific enough, had leaps of faith – in short because all necessary and sufficient preconditions were not identified.

Evaluation for Adaptation and Scaling Up

It is important to understand success beyond just knowing “what works”. Experience has shown that blindly copying or scaling an intervention hardly ever works. An important task for monitoring and evaluation is to gather enough knowledge and understand to be able to predict – with some degree of confidence – how an initiative and set of activities might work in a different situation, or how it needs to be adjusted to get similar or better results. We also need to be able to combine evidence from a number of studies in order to build a stronger picture of what is taking place and how, and then, most importantly, how context influences the initiative.

6. Glossary of Terms

Term	Definition/Application
Accountability ceiling	A dashed line drawn horizontally across an outcomes pathway. All outcomes below the accountability ceiling, whether medium term changes or changes in state and condition, represent changes for which the Foundation will hold itself accountable. While the accountability ceiling separates outcomes from impact in most cases, in others, impact may be among the results of an intervention that the Foundation expects to achieve primarily through its work and the work of its grantees and partners. Or at an earlier stage (e.g. Development phase) the ceiling may be drawn between outputs and outcomes.
Activities	The action taken by the Foundation and its grantees to deliver outputs and bring about outcomes and impact—for example, making grants, partnering, convening, developing networks, organizing, etc.
Assumption	<p>Assumptions come in at least three forms:</p> <ol style="list-style-type: none"> 1. The causal pathway of preconditions and activities leading to a long-term outcome expresses a set of assumptions about what to change and how change can take place. The point of ToC is to test whether these assumptions hold true. 2. The specific relationships drawn between outcomes in a framework rest on assumptions. ActKnowledge terms these as “rationales” to distinguish them from more general assumptions. Rationales explain why one outcome is a precondition to another. Rationales can also explain the specific choice and placement of activities within an outcomes pathway. Assumptions of this type are implicit in the diagram but are best made explicit through articulation. 3. Assumptions may be made about the context or environment within which the initiative will operate. If such assumptions involve things necessary to the theory and not yet attained, they are naturally treated as outcomes. If they are thought to be in place already and likely to be sustained, they should be noted but not put on the pathway as outcomes. As an example, proponents of an employment training program may assume jobs will be available in the occupations for which people are being trained. In developing the ToC, the group must consider whether that is a safe assumption. If not, it should be treated as a precondition, even if jobs in those occupations are available at present.
Backwards Mapping	The process of beginning with a long-term goal and working “backwards” through a chain of outcomes towards the earliest changes that need to occur. In backwards mapping one builds the outcomes pathway starting at the top, most general and longest-term outcome, then “drills down” by identifying each set of preconditions, ending at the most particular, immediate, and short-term outcomes to be achieved.

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Baseline	A measure of population for any indicators at the outset of the initiative, used for comparison as evaluation data are analyzed.
Core Planning Group	The group within the Foundation or other lead organization who will be responsible for development of the theory.
Drill down	Noun: an outcomes framework developed as a subsection or detail of a theory of change. A “drilldown” is the opposite of a summary map. Verb: to do the work of “drilling down” in your pathways of change from the general to the particular.
Facilitator	The person who runs the participatory Theory of Change development sessions. The facilitator should have good facilitation skills--able to keep people engaged and focused on outcomes, be responsive to the group dynamics, etc. The facilitator should also have a good grasp of Theory of Change concepts, terms, and practice.
Goal	A desired condition among people, institutions, environments (e.g. good health, literacy, gender equality). A goal implies a relatively broad and distant outcome and is usually synonymous with “impact”.
Indicator	Measurable evidence of meeting a goal. Indicators are visible signs, (e.g. legislation enacted, landmark publications, participation in a joint learning network) of the outcomes. Indicators can be either quantitative or qualitative. An indicator has four components: population, target, threshold, and timeline (see their definitions also). These answer the questions: <ul style="list-style-type: none"> • Who or what is to reach this goal? (population) • How many among that population do we need to have reached the goal? (target) • How much does the target group need to change (or to what level) to have reached and/or? (threshold) • By when does this goal need to be reached? (timeline)
Inputs	The funds and human resource capacity invested / allocated by the Foundation and its grantees (and partners if applicable) to address a development problem.
Intervention	The set of actions undertaken in an Initiative to realize outcomes.
Long-Term Outcome(s)	The final outcome represented in the outcomes pathway before the impact/goal level. The long-term outcome is the most general of all the outcomes the Foundation expects to achieve primarily through its work and the work of its grantees and partners.
Narrative	A prose summary of a Theory of Change. The narrative succinctly explains the logic of the outcomes pathway and key assumptions. It may include some contextual and background information.
Organizational capacity	The skills and resources the Foundation, its grantees or partners need to carry out the activities identified in a Theory of Change.
Outcome	Outcomes in a Theory of Change represent desired changes in condition of

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	some kind—whether a policy, law, behavior, attitude, knowledge, state of the environment—among people, institutions, and environments. Outcomes include immediate and intermediate changes in behavior, attitudes, or knowledge or other state or situation.
Outcomes pathway	Also <i>causal pathway, results chain map</i> : The graphic, diagrammatic representation of a Theory of Change, consisting of outcomes arranged and connected in causal pathways, with activities, assumptions and justifications keyed to the diagram.
Outputs	The tangible products or services that a grantee, partner, or the Initiative team deliver. These products and services are the deliverables and milestones that a grantee and its partner are accountable for according to an agreed schedule.
Population	As one dimension of a target or indicator, the aggregation of people among whom change will be effected.
Precondition	All outcomes in an outcomes pathway that contribute to outcomes above them in the hierarchy are preconditions. They are called preconditions because they are conditions that must exist, or prerequisites, for the next outcome in the pathway to be achieved.
Rationale	A rationale explains the logic and/or evidence base for a given connection between outcomes in a pathway. Rationales can also be used to explain why an activity or set of activities is necessary to attain an outcome.
Scope	The degree of inclusion of domains and conditions that have at some bearing on the long-term outcome; also the level of detail provided. In the breadth of an outcomes pathway, a ToC may be framed to include pathways that lie outside the Foundation’s work but are to some extent necessary to achieve the long-term or ultimate outcomes. Similarly, a deep scope will have the pathway drilled down to level of detail that shows present and short-term conditions of change. Different scopes are appropriate for different purposes.
Strategy	The optimal combination of opportunity, leverage, and capability to be employed by an initiative in attaining desired outcomes. Strategy is inherent in a Theory of Change.
Target	As one dimension of an indicator, how many among a given population must show the desired change for the outcome associated with the indicator to be considered fulfilled.
Theory of Change	Broadly, a set of beliefs and assumptions about what changes need to happen and how to bring them about, to reach a stated goal. As a methodological practice, Theory of Change is a process through which participants construct a descriptive model of (both graphic and narrative) that explains the outcomes sought, why they are needed, how they will be achieved, and how progress on them can be monitored.
Threshold	As one dimension of an indicator, the level of change that needs to be observed among the target population for the associated outcome to be considered fulfilled. Simply put, “How good is good enough”?
Timeline	As one dimension of an indicator, the time by when the threshold and the

	target should be attained to be able to consider the outcome fulfilled.
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