

SUE C. FUNNELL • PATRICIA J. ROGERS



PURPOSEFUL PROGRAM THEORY

**EFFECTIVE USE OF THEORIES OF CHANGE
AND LOGIC MODELS**

Purposeful Program Theory

Effective Use of Theories of Change
and Logic Models

SUE C. FUNNELL AND
PATRICIA J. ROGERS

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INTRODUCTION: THE PROMISE AND RISKS OF USING PROGRAM THEORY

THE 1920S ENTREPRENEUR Carl Weeks once wrote, “If you can dream it, you can build it.” This is the key idea that underpins program theory. Having a vision of where we are going and some clarity about how we plan to get there can help us work together to achieve our goals, and learn from both success and failure.

WHAT PROGRAM THEORY IS

A program theory is an explicit theory or model of how an intervention, such as a project, a program, a strategy, an initiative, or a policy, contributes to a chain of intermediate results and finally to the intended or observed outcomes. A program theory ideally has two components: a theory of change and a theory of action. The theory of change is about the central processes or drivers by which change comes about for individuals, groups, or communities—for example, psychological processes, social processes, physical processes, and economic processes. The theory of change could derive from a formal, research-based theory or an unstated, tacit understanding about how things work. For example, the theory of change underpinning some health promotion programs is that changes in perceived social norms lead to behavior changes. The theory of action explains how programs or other interventions are constructed to activate these theories of change. For example, health promotion programs might use peer mentors, advertisements with survey results, or some other strategy to change perceptions of social norms.

Program theory, under all its various labels, including “theories of change,” “logic modeling,” and “intervention logic,” has grown in popularity over the past twenty years or so. Many government and nongovernment

organizations across the world now encourage or require its use for planning, monitoring, and evaluating.

When done well, program theory can produce many benefits. It can develop agreement among diverse stakeholders about what they are trying to do and how, or identify where there are legitimately different perspectives. It can help to improve plans by highlighting gaps and opportunities for collaboration with partners. It can help to set realistic objectives. It can support the development of meaningful performance indicators to track progress and report achievements. It can be used to identify where and why unsuccessful programs are failing or what makes successful programs work, and how they might be reproduced or adapted elsewhere. It can provide a framework to bring together information from many sites, many projects, or many evaluations so that it is possible to learn from the past to improve the future.

Program theory, however, is not always done well. And when it is done badly, it misrepresents what an intervention does and what it can achieve. It can lead to monitoring systems and evaluations that produce an incomplete or distorted picture of what is happening and mistaken judgments about what is effective or efficient. It can demotivate staff and deflect attention from what is important to only what can be easily measured. It can silence important voices or fail to touch those who can act on it. It can take up time without adding value.

The promise of good program theory and the risk of bad program theory have motivated us to write this book. Over more than twenty years, we have worked with small and large organizations in countries all over the world; with municipal, state, and federal government agencies, and nongovernment organizations; on tiny local projects, multimillion-dollar national programs, and whole-of-government strategies; with service deliverers, policymakers, and funders; and in many sectors, including health, education, agriculture, justice, infrastructure, natural resources, community services, community development, and emergency management. Over this time, we have seen diverse approaches to program theory.

What we have learned from this experience, and from the expanding library of empirical research on program theory, is that program theory should be developed, represented, and used not in a formulaic way, but thoughtfully and strategically, in ways that suit the particular situation. We call this *purposeful program theory*.

PURPOSEFUL PROGRAM THEORY

Greek legend tells of the fearsome hotelier Procrustes who would adjust his guests to match the length of his bed, stretching the short and trimming off the legs of the tall. Guides to program theory that are too prescriptive risk creating such a Procrustean bed. When the same approach to program theory is used for all types of interventions and all types of purposes, the risk is that the interventions will be distorted to fit into a preconceived format. Important aspects may be chopped off and ignored, and other aspects may be stretched to fit into preconceived boxes of a factory model, with inputs, processes, outcomes, and impacts.

Purposeful program theory requires thoughtful assessment of circumstances, asking in particular, “Who is going to use the program theory, and for what purposes?” and, “What is the nature of the intervention and the situation in which it is implemented?” It requires a wide repertoire, not a one-size-fits-all approach to program theory.

Purposeful program theory also requires attention to the limitations of any one program theory, which must necessarily be a simplification of reality, and a willingness to revise it as needed to address emerging issues. As the American evaluator Daniel Stufflebeam (2001) has pointed out, evaluators who continue to use an unsuitable program theory are similarly at risk of creating a Procrustean bed for the evaluation.

OVERVIEW OF THE BOOK

The book is designed to help you assess your particular circumstances and develop, represent, and use program theory in appropriate ways. It has options at every stage and examples to help you decide which options to use and how to adapt them to your circumstances. Throughout the book, we draw on examples from our own work and the work of others. (“Our work” refers to projects we have done together and individually.) Each chapter includes exercises to try out new ideas and techniques.

If you are new to program theory, it will be most useful to read the chapters in sequence. If you have some experience or are coming back to the book during an evaluation, you can select the particular chapter you need.

Key Ideas in Program Theory

Part One sets out the key ideas of program theory and how it has developed over time. We explain in Chapter One the essential features of program theory, using the broad policy objective of eating an apple a day to keep the doctor away as an example of how program theory can be used in different ways to learn from success, failure, and mixed results. Chapter Two describes how program theory has developed over time and sorts out the confusion about the different terms that have been used. And Chapter Three introduces seven widespread myths about program theory and seven common traps to avoid.

Assessing Your Circumstances

A key message of this book is the need to approach program theory in a way that suits your circumstances. Therefore, Part Two examines how to analyze the intended uses of program theory and the nature of the situation and intervention.

We explain in Chapter Four why it is important to be clear about who is going to use program theory and for what purposes. A program theory that is useful for developing internal monitoring systems for incremental correction, for example, could be inappropriate for developing performance measures for external accountability. A theory to guide the design of an impact evaluation might not be sufficient to guide a process evaluation that aims to document an unfolding innovation. Being clear about the intended uses of program theory, reviewing this as circumstances change, and considering this when making decisions is an essential part of purposeful program theory.

Chapter Five discusses how to identify simple, complicated, and complex aspects of the program or policy and the situation in which it is being implemented. Program theory can be used for interventions that are simple; that is, they have a single implementing agency and a well-understood causal process that works pretty much the same everywhere. But most interventions have important complicated or complex aspects that program theory needs to address in order not to misrepresent how it works. The implications of complicated and complex aspects of interventions for developing, representing, and using program theory are addressed throughout the book.

Developing and Representing Program Theory

The chapters in Part Three focus on ways of developing and representing program theory.

Chapter Six discusses how to combine three approaches to developing a program theory. A deductive approach focuses on stated policies and procedures and previous research. An inductive approach builds from observing the intervention in action, reviewing previous observations of it, or observing similar interventions. A mental model approach works with stakeholders to articulate their tacit understandings of how the intervention works.

Chapter Seven sets out three steps to develop a program theory. Step 1 is undertaking a situation analysis to identify problems and opportunities and understand the causes and consequences of problems. Step 2 is to decide the program scope: agreeing which aspects of the problem—its causes and consequences—the program will focus on directly and primarily and which will be beyond the direct focus. The more complex the program is, the more fluid the boundaries should be. Step 3 is to articulate an outcomes chain that shows the assumed or hypothesized cause and effect or contingency relationships between immediate and intermediate outcomes and ultimate outcomes or impacts (both short and long term). In this chapter, we address each of these tasks by applying them to an employment program for mature workers, and we provide examples of how these can be done in different ways to suit any situation.

In Chapter Eight, we introduce a structured approach to developing the second part of the program theory, the theory of action, which spells out how the intervention is intended to activate the theory of change. For example, if a program aims to change health behaviors through increasing knowledge of their consequences, will this knowledge be achieved through a public advertising campaign, personal consultations from health professionals, viral marketing from peers, or some other activities? We introduce the program theory matrix: a structured approach that explores systematically the outcomes chain developed in the theory of change. For each of the outcomes in the outcomes chain, the matrix identifies the nature and quantity of program activities that are intended to achieve this and other factors that will affect whether and how well the outcome is achieved. It also defines what success will look like for the outcome. We continue with the example of

an employment program for mature workers, introduced in Chapter Seven, to demonstrate the various components of a theory of action.

We look at different types of logic models in Chapter Nine that can be used to represent program theory. Pipeline models show an intervention as a linear series of boxes labeled something like “inputs, processes, outcomes, and impacts.” Outcome chains, which show a series of results leading to the final impacts of interest, have the advantage of being able to represent more complicated and complex interventions where the activities occur throughout the causal chain and are not all present at the beginning of the process. Realist matrices focus on showing how interventions work differently for different groups or in different situations. We discuss what makes a good logic model, do some logic model makeovers, and review some technology for producing these models.

Chapter Ten discusses how to assess the quality of the program theory in terms of its internal coherence and its validity with respect to external considerations. A program theory can be poorly expressed, incompletely expressed, or just plain wrong. It is important to review it systematically during development and periodically throughout its use.

Resources for Developing Program Theory

The chapters in Part Four provide resources to help with the processes of developing and representing program theory. It can be helpful to draw on previous research and planning when developing the outcomes chain.

Chapter Eleven provides information about a number of theories of how change occurs for individuals, organizations, and communities. The theory of reasoned action (Fishbein and Ajzen, 1975), the theory of planned behavior (Ajzen, 1988), and the stages of change theory (Prochaska and DiClemente, 1983) are theories about changing behaviors of individuals. Empowerment theory (Perkins and Zimmerman, 1995) may relate to individuals, groups, or communities. Diffusion theory (E. Rogers, 1995) is largely about changing community behaviors (and behaviors of individuals en masse). Socioecological theory (Bronfenbrenner, 1979) is about mechanisms for change for individuals, families, groups, and communities and the interplay among all of those actors. Network theory (Granovetter, 1973) is about how the relationships, networks,

and connections among entities, and not just the characteristics of the entities themselves, affect outcomes. The entities could be individuals, organizations, special issues groups, or even whole countries. There are many other research-based theories of change, and the chapter lists some other potentially relevant theories that could be used as the basis for an intervention's specific theory of change.

Chapter Twelve outlines some common program archetypes that can be selected, adapted, and combined for particular situations. These include advisory, information, and education programs that seek to change individual behavior by informing decisions; “sticks and carrots,” which work through incentives and sanctions; case management; community capacity development; and direct service delivery.

Chapter Thirteen provides examples of variations on pipeline and outcomes chain logic models.

Using Program Theory for Monitoring and Evaluation

The final part of this book describes how to use program theory specifically for monitoring and evaluation.

Chapter Fourteen explains how to use program theory to identify what aspects of the intervention, the context, and results should be measured and how to use key evaluation questions to focus an evaluation in terms of data collection, analysis, and reporting. Program theory can help to structure a coherent narrative report and a focused analysis, whether reporting the results of a single evaluation or bringing together data from many studies. We provide some suggestions on ways to do this for small and large evaluations.

Even when there is credible evidence that outcomes have occurred, can we be confident that an intervention has caused them or at least contributed to them together with other factors? In recent years there has been a vigorous debate about the suitability of different methods and designs to address the issue of causal analysis. In Chapter Fifteen, we set out a three-part framework for causal analysis when using program theory that can bring to bear the full range of research designs and methods for causal analysis. The starting point is looking for congruence of results with those predicted by program theory. The second part is finding relevant comparisons that indicate the difference that the intervention has made. These can include creating a control group

or a comparison group or making other relevant comparisons. The third part is checking out alternative explanations for the results and exceptions to the patterns.

Chapter Sixteen describes ways to bring together information across the different levels of a program theory, or across several interventions that use the same program theory, and how to report this coherently and effectively.

TAKING A STRATEGIC AND ADAPTIVE APPROACH

Program theory can be developed, represented, and used in many ways. Throughout this book, we invite you to take a purposeful approach to program theory, matching it to your situation, checking how it is going, and adapting it as needed to ensure that it contributes to improved interventions and the outcomes you seek.

Key Ideas in Program Theory

