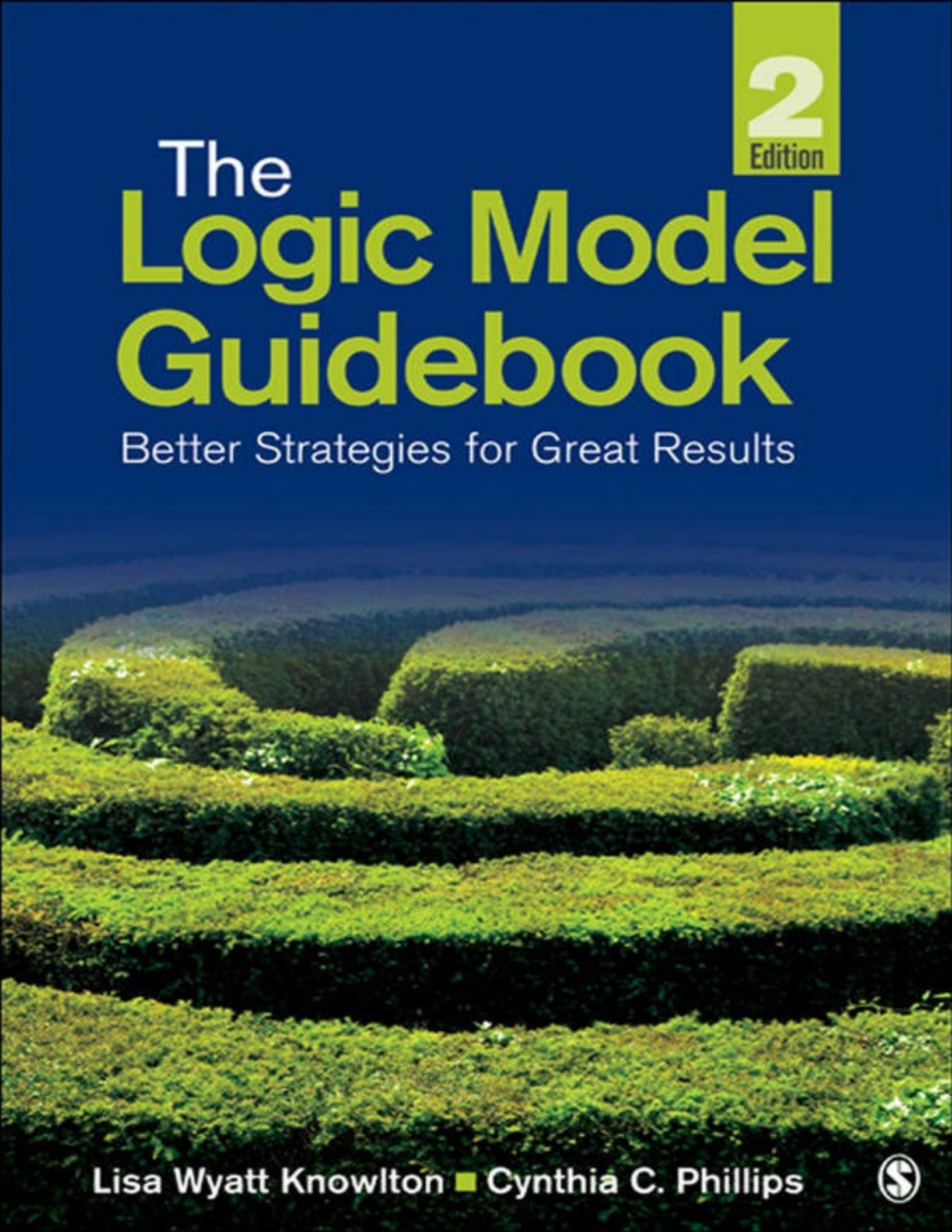
2
Edition
The
Logic Model
Guidebook
Better Strategies for Great Results
Lisa Wyatt Knowlton ■ Cynthia C. Phillips

“A very thorough treatment of the practice of logic modeling with concrete guidance based on actual programs and projects. *The Guidebook* is useful both as a teaching tool and as a more general way of familiarizing practitioners with logic models. I am impressed with the comprehensiveness and detail …”

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—Jill Wohlford, *Vice President for Learning & Strategy, Completion by Design*

“It is the only text I am aware of that focuses specifically on logic modeling. The links from theory to practice are important. It contains many practical illustrations of innovative and diverse logic models. *The Guidebook* also offers support to more experienced professionals by providing a range of approaches and raising important considerations in model development.”

—Gary Miron, PhD, *Professor, Evaluation, Measurement & Research, Western Michigan University*

“*The Guidebook* is easy to read and understand. I like how logic models make assumptions visible. This makes it more likely to choose effective strategies and secure desired results.”

—Faye Richardson-Green, *Director Global Learning & Development, Steelcase, Inc.*

“I especially liked the learning aids, the clear writing style, the many figures and examples and the listings of important points within each chapter. This is all good teaching methodology.… Logic models are an important tool in planning and evaluation. Both planners and evaluators should know how to use them.”

—James Sanders, PhD, *Professor Emeritus, Western Michigan University*

2
Edition

The Logic Model Guidebook

For Taylor, my earth angel.
I know you will soar.
For Tim, with profound gratitude, admiration, and respect.

For Courtney and Nicholas, my greatest lessons learned. You have taught me much.

2
Edition

The Logic Model Guidebook

Better Strategies for Great Results

Lisa Wyatt Knowlton ■ Cynthia C. Phillips

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FOR INFORMATION:

SAGE Publications, Inc.
2455 Teller Road
Thousand Oaks, California 91320
E-mail: order@sagepub.com

SAGE Publications Ltd.
1 Oliver's Yard
55 City Road
London EC1Y 1SP
United Kingdom

SAGE Publications India Pvt. Ltd.
B 1/I 1 Mohan Cooperative Industrial Area
Mathura Road, New Delhi 110 044
India

SAGE Publications Asia-Pacific Pte. Ltd.
3 Church Street
#10-04 Samsung Hub
Singapore 049483

Acquisitions Editor: Helen Salmon
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Typesetter: C&M Digitals (P) Ltd.
Proofreader: Wendy Jo Dymond
Indexer: Marilyn Augst
Cover Designer: Bryan Fishman
Marketing Manager: Nicole Elliott
Permissions Editor: Adele Hutchinson

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Wyatt Knowlton, Lisa.

The logic model guidebook : better strategies for great results / Lisa Wyatt Knowlton, Cynthia C. Phillips. — 2nd ed.

p. cm.
Includes bibliographical references and index.

ISBN 978-1-4522-1675-1 (pbk.)

1. Proposal writing for grants. 2. Logic. I. Phillips, Cynthia C. II. Title.

HG177.K56 2013
658.15′224—dc23

2012016268

This book is printed on acid-free paper.

12 13 14 15 16 10 9 8 7 6 5 4 3 2 1

Brief Contents

Detailed Contents

Preface

Responding to and creating change is demanding. Every day, people in nongovernmental organizations, the private sector, universities, and community-based organizations are responding to or creating change. Models can help us see what is and what we want to create. They can be powerful tools that support learning and performance. They can help us with metacognition: thinking about our thinking.

Logic models are used in a huge range of topical content and functions worldwide. They can easily explicate the influence of actions on results. If our aim is coping with change and generating it, a critical review of "do" and "get" is a vital action. As we face complex challenges like climate change, education quality, poverty, homelessness, water distribution, healthcare inequities, aging, and hunger, we need potent ways to communicate the current situation and the desired one. As we consider ways to innovate, transfer, and market knowledge—we need powerful approaches to new contexts. As we deliberate a sustainable planet—we need to be able to co-create options with shared meaning. Logic models are tools that help these examples of important work.

We wrote the *Guidebook* because we care about results. We know people need better skills, knowledge, and tools to have influence. While logic models are never perfect, they do offer a partial remedy for better decisions, plans, and adaptation. They can contribute to effectiveness and are consistent with Palchinsky's Principles to

- seek out new ideas and try new things;
- when trying something new, do it on a scale at which failure is survivable; and
- seek out feedback and learn from mistakes as you go along.

This second edition of the *Guidebook* provides the reader with a basic understanding of how to create and use logic models. This is important for people who work in the nonprofit, government, and private sectors with responsibilities to lead and manage. Evidence-based models can be particularly helpful to create programs, plan, communicate, and evaluate.

Logic models can provide important help that guides better thinking and focused inquiry. Logic modeling is a process that contributes to clarity about the sequence and the content of interactive relationships. Logic models display relationships of many kinds: between resources, activities, outcomes, and impact. They can also articulate the interaction of environmental barriers and facilitators. The physical display models provide allows a chance to critically review the relational logic among the "pieces" and context. And they can be a platform to prompt important questions about assumptions and choices. Logic models can significantly aid strategy development if we use them to consider what's plausible, feasible, and optimal *vis-á-vis* intended results.

All logic models should be considered drafts. Every model example in the *Guidebook* has flaws. Because models represent perception and reflect choices, they have consequent limitations. Any individual has "blind spots," so people and groups that author models include those. Regardless, models and modeling offer a potent alternative to lengthy narrative because visual display is such a powerful, common way to create shared understanding and test quality.

There are no perfect models, but the quality of models certainly can range from simply

"cockamamie" to highly strategic. Quality is a vital matter in creating models. The best standard we can offer to ensure the potential of its intended outcomes is prior evidence. However, when generating innovation, it's important to simply acknowledge rationale and "see" the prototype on paper. This can ensure fidelity of implementation and focus evaluation or at least document the initial approach in contrast to what actually is executed.

Modeling can be an exciting process. It includes a cycle of display, review, analysis, critique, and revision to develop a model. These action steps, best done with colleagues or stakeholders, can contribute significantly to more informed models and are more likely contribute to results. Using logic models in a systemic and disciplined approach to design, planning, communication, and evaluation can contribute to individual and organizational learning.

The *Guidebook* is a practical text for students and field practitioners. It is organized with the assumption the reader has no knowledge or prior experience. We hope it supports your changes in awareness, knowledge, and skill relative to models and modeling.

New to the Second Edition

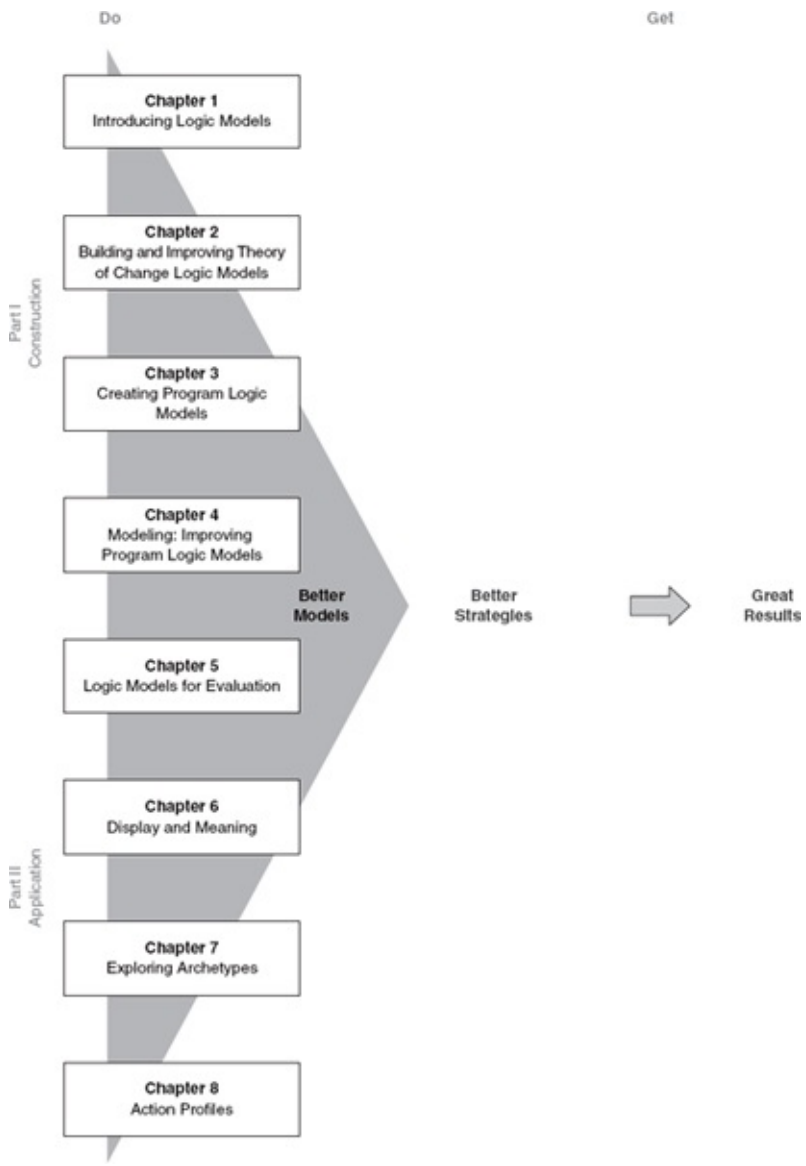
Each chapter in the second edition retains some of the prior "classic" resources and includes many contemporary additions. We have added a large number of model examples, associated descriptions, and an entire new chapter with seven profiles that show the reader how models are used in the field.

We've retained the initial organization of the text in two parts: construction and application. Model construction is covered in Chapters 1 through 4. The application of models is in Chapters 5 through 8. The construction chapters introduce readers to models and their creation and improvement. The application chapters offer a more thorough review of use and include many new examples of models in context.

Every chapter still includes an overview, learner objectives, questions, and exercises along with learner resources. Chapter 1 introduces models, their benefits, and some caveats. Chapters 2 and 3 detail two types of models: theory of change and program logic models. Chapter 4 describes improving model quality. This is a vital contribution because we suggest that the model quality correlates to quality in planned strategy and tactics. Ultimately, these are important influences for implementation, evaluation, and intended results.

Chapter 5 focuses on how models can be of significant use to monitoring and evaluation. Logic models are an important tool in many aspects of evaluation design, planning, and execution. They are also very useful to those who are evaluation consumers. Chapter 6 provides examples of the range of display for models. We have included several new ones. Likewise, in Chapter 7 we identify some reliable evidence-based examples that can be archetypes for your work. These show how it's possible to "borrow brilliance" and build on the great work of others. Chapter 8 is all new content. It profiles some wonderful work using models as a central tool and process. These profiles show how logic models contribute to a range of functions and disciplines.

We hope this text is read and used in ways that support better thinking, strategies, and models. If so, we're confident you'll secure great results!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Part I
Construction
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Chapter 4
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Better Models
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Chapter 5
Logic Models for Evaluation
Chapter 6
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Application
Chapter 7
Exploring Archetypes
Chapter 8
Action Profiles

Acknowledgments

Our work is valuable because of amazing people, our clients, who care about change and results. Our first and warm thanks go to them.

This edition of the *Guidebook* benefited from many new contributors and more than a dozen new models. We appreciate the time and effort these colleagues made to enrich the text. Some of the models that appeared in the first edition have been retained. In all, contributors include the following:

Chapter 6

Example 1: Eco Hub—Adrian Jones, Integration and Application Network, University of Maryland Center for Environmental Science

Example 2: Wayne Food Initiative—Tes Thraves, North Carolina State University

Example 3: Promoting Preschool Change—Gale Berkowitz, DrPH, (former) Director of Evaluation; Kathleen Reich, MPP, Program Officer, Leader, Preschool Grantmaking; Lois Salisbury, JD, Director, Children, Families and Communities Program, The David and Lucile Packard Foundation. Julia Coffman provided the Kingdon models.

Example 4: Collaborative Learning, Inquiry, and Practice—Beverly A. Parsons, Ph.D., Executive Director, InSites

Example 6: Independent Sector—Sherry Rockey, (former) Vice President Independent Sector

Chapter 7

Example 2: Pathways Mapping—Lisbeth Schorr, PhD, and Vicky Marchand

Example 4: Center on School, Family, and Community Partnerships, Johns Hopkins University —Joyce Epstein, PhD.

Example 5: National Center for Injury Prevention & Control (CDCP)—Sue Lin Yee, MA, MPH, and Howard Kress, PhD.

Chapter 8

Profile 1: *Civic Engagement*—Seattle Works—Tara Smith and Dawn Smart, MA Clegg Associates

Profile 2: *Better Corporate Giving*—ConAgra Foods Foundation—Kori Reed, Vice President Cause & Foundation

Profile 3: *Kyrgyzstan Decent Work Programme*—International Labour Organization, Craig Russon, PhD, and Alexey Kuzmin, PhD Process Consulting

Profile 4: *Alabama Tackles Asthma*—Alabama Department of Public Health—Debra Hodges, PhD

Profile 5: *Resilient Communities*—Post Carbon Institute—Johanna Morariu, MA, Innovation Network

Profile 6: *Sheltering Families*—Haven House—Angela Mayeaux, Executive Director

Profile 7: *Environmental Leadership*—Paint Product Stewardship Initiative—Matt Keene and Chris Metzner

Our thanks to those who graciously submitted example models for this edition. Given limitations in space, most don't appear here in print. We hope there will be other ways to make your efforts more visible. The skills and considerable knowledge of the crew at SAGE were essential to many aspects of this book.

Several other exceptionally capable professionals contributed to new understandings in model development and applications. They include Sal Alaimo, PhD; Johnny Morell, PhD; Rosalie Torres, PhD; and Rodney Hopson, PhD.

Past and recent readers offered valuable critique and constructive feedback on all chapters. They include Kathryn Agard, EdD; Tom Chapel, MA, MBA; Richard Elmore, EdD; Simon Fass, PhD; Nancy Horn, PhD; Gary Miron, PhD; Janice Molnar, PhD; Lois-ellin Datta, PhD; David Osborn, DMin; Faye Richardson-Green; Craig Russon, PhD; Jim Sanders, PhD; Sylvie Taylor, PhD; and Rob Walsh, PhD Their comments and insights were helpful.

We deeply appreciate the generous and thoughtful comments on our text by Matt Knott, Wendy Puriefoy, David Ray, Kori Reed, Bill Rudnick, Joe Stewart, and Jill Wohlford, as well as several of the readers noted above. We applaud your leadership and the vital work you do in behalf of those most vulnerable—across the globe.

Even if it's the second time around, family provides important support in the many challenges of creating a book. They were bystanders to long hours at the computer and witnessed worry about the details. We are deeply grateful. Lisa applauds, with love, Timothy, Taylor, and Meg. Cynthia offers the very same to Courtney and Nick.

About the Authors

Lisa Wyatt Knowlton, EdD, is a cycling enthusiast, Lake Michigan fan, adoption advocate, and voracious reader. She holds a BA in international relations from Michigan State University, an MPA. from Western Michigan University, and an EdD in management and policy from Western Michigan University. Her work history includes senior roles in programming and management of private, community, as well as corporate philanthropy. She has managed change projects for the W. K. Kellogg Foundation as well as the Aspen Institute, the Bill and Melinda Gates Foundation, the Independent Sector, and the Ball, Nokomis, and Kauffman Foundations. Lisa is a W. K. Kellogg National Leadership Fellow with experience in Central America, Asia, and Europe. Lisa authors a blog called *tinker.* She is a contributor to *Leadership in Nonprofit Organizations* (Sage, 2011). Her areas of specialization include strategy, organization development, leadership, change management, and systems thinking. She is chief strategy officer, management guru, and learning coach with Phillips Wyatt Knowlton, Inc. Lisa has cross-sector experience and speaks Spanish. You can reach her via e-mail at: lisaw@pwkinc.com.

Cynthia C. Phillips, PhD, is a birder, recovering aerobics instructor with 30 million meters rowed, and cyber-sleuth. She received a BS in biology and chemistry from Indiana University, an MA in educational leadership from Western Michigan University, and a PhD in measurement, research, and evaluation from Western Michigan University. Her experience includes consultation with the W. K. Kellogg Foundation, the Ball Foundation, the Bill and Melinda Gates Foundation, Nokomis, Kauffman, and the David and Lucile Packard Foundations in the design and implementation of evaluation, evaluation training, and knowledge management projects. She is the author of the W. K. Kellogg Foundation *Logic Model Development Guide.* Cynthia is a sought-after presenter on logic models and knowledge management. Her areas of specialization and expertise include evaluation/measurement; knowledge management; organizational learning; logic models, quantitative methods, and qualitative methods; and electronic data collection and dissemination. Cynthia offers a user-friendly approach to evaluation capacity building. She is chief idea engineer and measurement expert with Phillips Wyatt Knowlton, Inc. You can reach her via e-mail at cynthiap@pwkinc.com.

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PART I

Construction

1

Introducing Logic Models

This chapter introduces logic models. There are two types: theory of change and program. This chapter describes model benefits and uses and explains the role of modeling in both program and organizational effectiveness. The process of modeling begins with results. Regardless of type, quality models are evidence based.

LEARNER OBJECTIVES

- Explain the difference between models and modeling
- Recognize the benefits and uses of logic models
- Demonstrate how to “read” a logic model
- Recognize types of models and their characteristics
- Describe the ways that models can support effectiveness

Work in any sector, whether private, charitable or government, requires design, planning, monitoring, and evaluation. Each of these functions solves problems, and evidenced-based models are a great aid in any context. Perhaps you have been asked to design a new program, lead a change project, create a marketing strategy, or plan an evaluation. Did drafting a narrative to circulate among colleagues feel fragmented or inadequate? Did you think, “Where do I begin?” Logic models and modeling can be a potent option to resolve your dilemma. The *Guidebook* provides the practical support you need to create and use models. It will also enhance your understanding of the relationships between actions and results. Step by step, we describe how logic modeling can be used as both a tool and a process that resonate with learning and performance management.

Basic Concepts

Models and Modeling

Logic models support design, planning, communication, evaluation, and learning. They are often used when explaining an idea, resolving a challenge, or assessing progress. They can untangle and clarify complex relationships among elements or parts.

Logic models are a graphic way to organize information and display thinking. They are a visual approach to the implicit maps we all carry in our minds about how the world does or *should* work. Logic models are tools that convey a scheme, program, or project in a brief, visual format. Logic models describe planned action and its expected results. A model is a snapshot of an individual’s or group’s current thinking about how their idea or program might work.

Modeling is a technique. The process of modeling encourages iterative development of an idea, program, or project. It can create a safe space to start a debate, generate ideas, support deliberations, and allow one to think more clearly about specific relationships. A single, coherent logic reflects a consistent thread that connects design, plans, execution, and evaluation. This thread of evidence-based logic is critical to program and organizational effectiveness.

Modeling allows careful consideration of the relationship between activities and results. When tackled by a team or small group of stakeholders, models can be improved by engaging the knowledge and experience of others. We think modeling is significantly underutilized as a valuable process with real benefits. We believe the best models are socially constructed in a shared experience that is facilitated. The shared understanding and meaning they produce among colleagues are valuable and enable success in subsequent steps of implementation and assessment.

Logic Model Benefits

In addition to extraordinary execution, organizational effectiveness ultimately requires design, planning, monitoring, and success measures. Logic models can contribute to the quality of all of these. In Chapters 1 through 4, we address models from the design and planning perspective. In Chapter 5, we offer more detail about their use with monitoring and evaluation. Logic models also

- Develop common language among stakeholders.
- Offer highly participatory learning opportunities.
- Document and emphasize explicit outcomes.
- Clarify knowledge about what works and why.
- Identify important variables to measure and enable more effective use of evaluation resources.
- Provide a credible reporting framework.
- Lead to improved design, planning, and management.

When logic models and modeling are used as a standard technique, they can influence an organization's effectiveness. Logic models offer the strategic means to critically review and improve thinking. And better thinking *always* yields better results. Modeling can happen well before resources are committed or final decisions get made. This offers a way to pretest quality and limit risk.

Effectiveness is not limited to—but certainly depends on—a clear vision, capable implementation, and the means to monitor both processes and results. Logic models can be tremendous supports for creating and communicating a common understanding of challenges, resources, and intended success. Moreover, models can also be used to calibrate alignment between the "big picture" and component parts. They can illustrate parts of or whole systems. Choosing a perspective can influence the level of detail. When modeling, this specifies boundaries as well as the breadth or depth of display. For example, a logic model can show the learning objectives for an elementary Spanish curriculum, what a school district will do to secure student achievement, or what the federal government will provide in educational resources for second-language learning.

Logic Models Defined

Logic models are a visual method of presenting an idea. They offer a way to describe and share an understanding of relationships (or connections) among elements necessary to operate a program or change effort. Logic models describe a bounded project or initiative: both what is planned (the doing) and what results are expected (the getting). They provide a clear road map to a specified end. The development of models (or the modeling process) provides an opportunity to review the strength of connection between activities and outcomes. Through the experience of critical review and development, models can display participants' learning about what works under what conditions.

Models are the product of modeling—which we believe is best done in small groups of stakeholders with the aid of intentional facilitation. They complement systems thinking as a tool and technique for achieving valid but simplified representations of real-world complexities. Common synonyms for logic models include idea maps, frameworks, rich pictures, action, results or strategy maps, and mental models. Although logical frameworks (logframes) and causal loop diagrams (systems dynamics) are used for purposes similar to logic models, they are fundamentally different but complementary tools.

Logic Model Uses

While often used in the nonprofit sector among large nongovernmental organizations and foundations, logic models are of increasing interest among community-based organizations and the private sector, too. Because models enhance learning through the iterative exchange of information and experience, they offer important features to organizations that value evidence, diversity, dialogue, feedback, inquiry, great planning, and teams. Models can be used in program design, planning, implementation, and evaluation. For example, logic models can be used to design a marketing program, display a purchasing process, describe a school district's education improvement plan, create a community leadership program, or establish the best ways to resolve conflict.

Two Types: One Logic

We describe two types of models: theory of change and program. They differ by level of detail and use but represent the same logic. A *theory of change* model is simply a general representation of how you believe change will occur. A *program* logic model details resources, planned activities, and their outputs and outcomes over time that reflect intended results.

These two model types are different in their appearance and use. The level of detail and features distinguish theory of change and program logic models. Program logic models include more features than theory of change models. This concept of "view" is important and is discussed further in Chapter 4 because it influences the quality and utility of models. Theory of change models are conceptual, and program logic models are operational. Model types and their relative features are indicated in Table 1.1.

Relative to time frame, level of detail, volume of elements, display, and focus, the model types contrast. They are alike because they share the same research, theory, practice, and/or literature. Essentially, the types are different views of the same evidence-based logic that have a shared origin.

Model use differs in purpose(s). Theory of change models display an idea or program in its simplest form using limited information. These models offer a chance to test plausibility. They are the "elevator speech" or cocktail napkin outline of an idea or project. Program logic models vary in detail but offer additional information that assists design, planning, strategy development, monitoring, and evaluation. Program models support a display that can be tested for feasibility. They are the proposal version of an idea or project because they have fleshed out far more detail that often includes activities, resources, outputs, and other elements of interest to those creating and/or using the model. The relationships between elements, both the relative interaction and sequence, are valuable for understanding intended work and causal connections. They can be a huge help in creating action plans.

Historical Background

Use of theory of change and program logic models began in the 1970s. Carol Weiss (1995) and Michael Fullan (2001) and Huey Chen (2005) are among the pioneers and champions for the use of program theory in program design and evaluation. U.S. Agency for International Development's logical framework approach (Practical Concepts, Inc, 1971) and Claude Bennett's (1976) hierarchy of program effectiveness were among the earliest uses of the types of visual displays that have evolved

into the program logic models we know today.

Table 1.1 Features of Model Types

Feature	Theory of Change Logic Model	Program Logic Model
Time frame	No time	Time bound
Level of detail	Low	High
Elements	Few ("do + get")	Many
Primary display	Graphics	Graphics + text
Focus	Generic	Targets + specified results

Logic models did not receive much recognition, however, until after the United Way of America came out with its publication *Measuring Program Outcomes* in 1996. This publication promoted the structures and vocabulary of logic models. The W. K. Kellogg Foundation also was instrumental in spreading the use of logic models with its *Logic Model Development Guide* (2001). For those readers interested in more detail on the historical evolution of logic models, see the references provided at the end of this chapter. Thinking about thinking, or metacognition, is present in many new management and leadership texts. Because our thinking affects our actions, it's an area that's well worth understanding better.

Examples

In the examples that follow, we briefly explain the general concepts and terms related to a theory of change and to a program logic model. Chapters 2 and 3 provide more depth. Although we show one of each type of model, it is important to keep in mind that these are but two examples from a much broader continuum of possibilities. There are many ways to express or display the ideas and level of detail.

Theory of Change Model Example

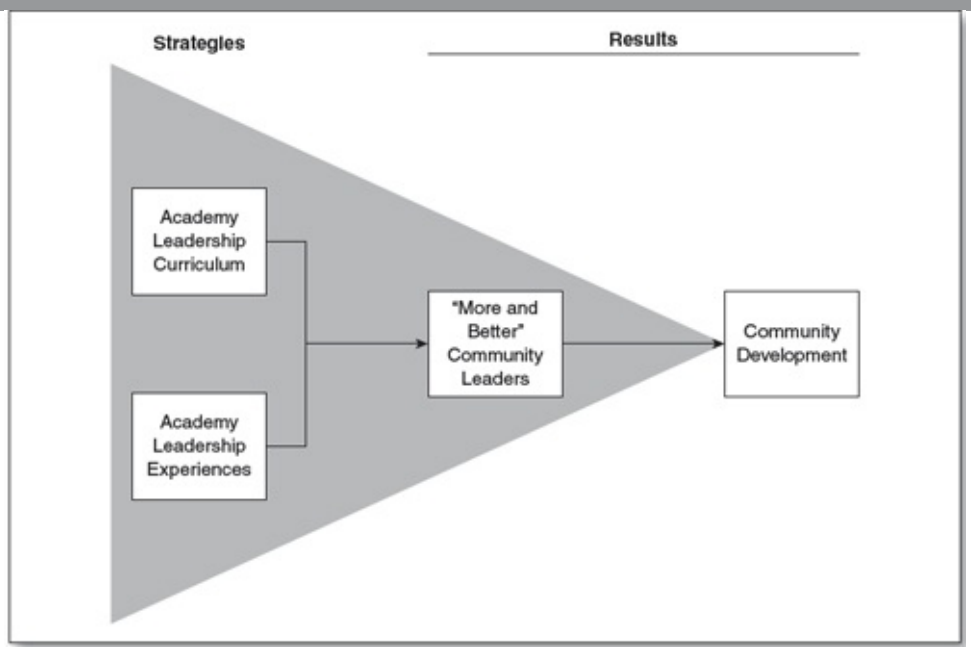
Figure 1.1 shows a simple theory of change model for leadership development. Read from left to right, it suggests that some strategies, for example, curriculum and experiences, can positively influence people so they can more effectively tackle community challenges. This theory relies on the assumptions that training, experiential learning, and community orientation will have a substantial influence on individuals' skills and ultimately result in community development. It also relies on a particular framing of the "problem(s)."

Chapter 2 focuses on creating theory of change logic models. They are the critical foundation for any change effort. Often, these models exist as part of an internal mental framework that is "dormant" or undisclosed. They can also imply considerable knowledge, experience, research, and practice. The evidence base for theory of change models typically is not made explicit.

Program Logic Model Example

Program logic models inventory, from start to finish, a specified program effort. For example, a program logic model for a community leadership program (based on the theory of change) would include the specified resources/inputs, activities, outputs, outcomes, and impact. Resources or inputs are what are needed to ensure the program can operate. Activities are the tactical actions (e.g., events, services, publications) that occur to fulfill the promise of each strategy. Together, activities make up the program design. Outputs are descriptive indicators of what the specific activities generate. Outcomes are changes in awareness, knowledge, skill, or behavior. The impact reflects changes over a longer period. Figure 1.2 displays a simple program model for the same community leadership program shown as a theory of change model in Figure 1.1.

Figure 1.1 Community Leadership Academy Theory of Change

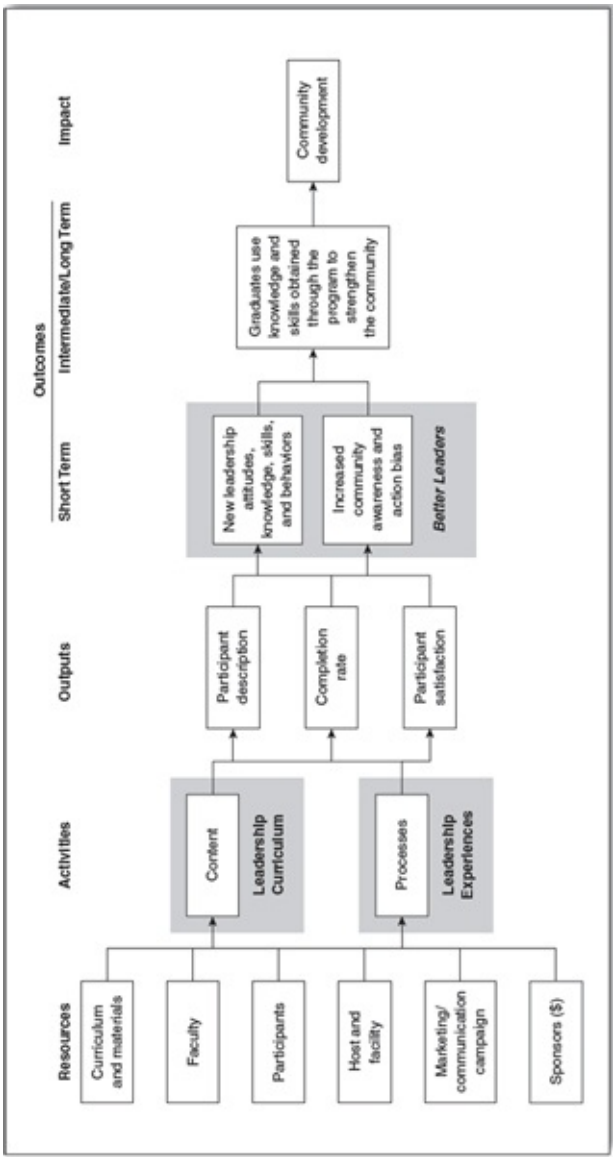


This program model suggests desired results include more and better leaders and community development. It implies the leadership development agenda is about resolution of community challenges and that, if resolved, it contributes to community development.

To "read" this model, first note the intended impact (ultimate aim) of the program: community development. Then, move to the far left-hand side, where resources or inputs essential to the program are listed. Logic models employ an "if–then" sequence among their elements. When applied to the elements in each column, it reads, "*If* we have these resources, *then* we can provide these activities. *If* we pursue these activities, *then* we can produce these outputs. *If* we have these outputs, *then* we will secure these outcomes," and so on.

This model is *just one* very simple representation of how a program might be designed and planned for implementation. Many variations on this example could represent program design and planning for community leadership development that meets standards of logic and plausibility. We know that Figure 1.2, in fact, represents a program with some definite flaws. More discussion about how the program could be improved through a "mark up" (or critical review) that tests the program design is described in Chapter 4.

Figure 1.2 Community Leadership Academy (CLA) Program Logic Model



Program Logic Model and Evaluation Design

This guidebook also offers some support for using logic models to assist in evaluation design. This book will address only the framing of broad inquiry. At this level, evaluation questions are the foundation for evaluation design and planning. If we apply this to the community leadership program example, it is appropriate to focus on the program's intended results. The summative evaluation question is, What difference did the program make in the community's development? Perhaps a place to begin is in determining the contribution made by the program to the development of more and better community leaders. A clear, coherent program logic model provides great assistance during evaluation design. A model points out the key features and shows the relationships that need assessment.

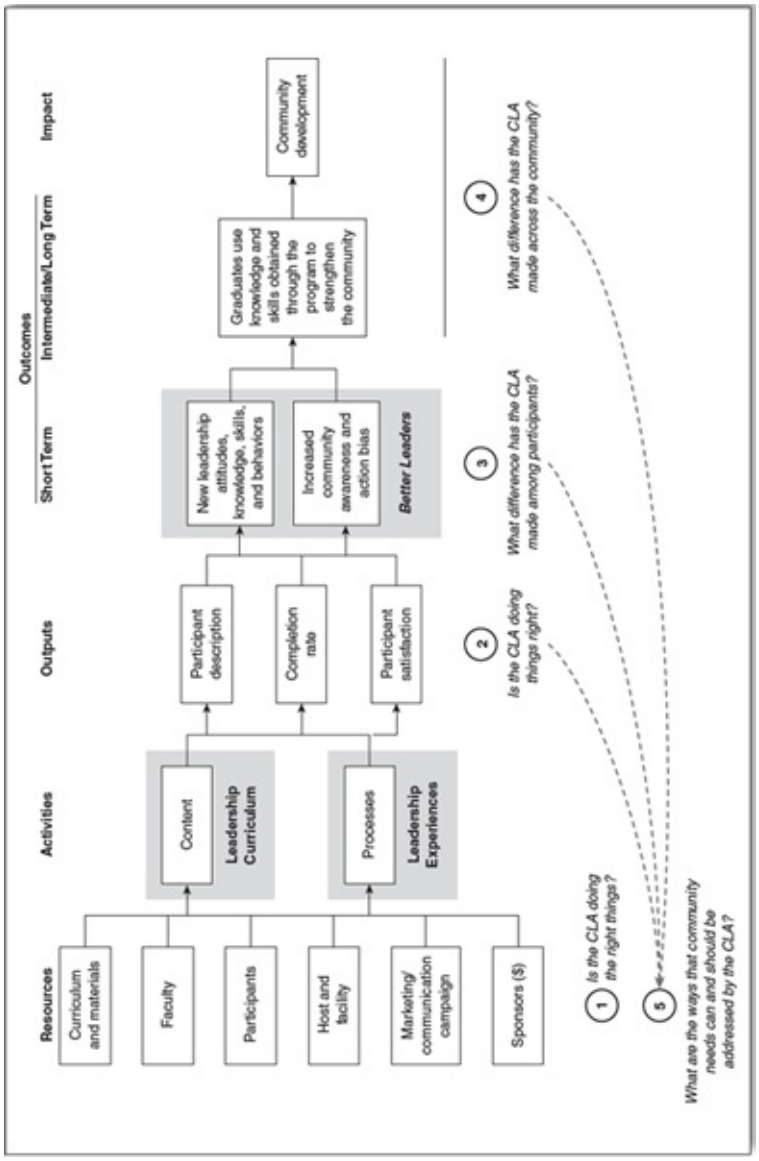
In this example, an evaluation could consider both changes in the awareness, knowledge, skills, and behavior of participants as well as the community development impact. Stakeholders (funders, participants, and other influentials) might also want to know about the content selection and quality of training. They might be curious about implementation fidelity and adaptation, too. Figure 1.3 demonstrates a program logic model with typical evaluation questions.

This program logic model is serving evaluation. The five key evaluation questions are applied at specific locations on the illustrated program model. Key questions for the Community Leadership Academy (CLA) displayed include

1. Is the CLA doing the right things?
2. Is the CLA doing things right?
3. What difference has the CLA made among participants?
4. What difference has the CLA made across the community?
5. What are the ways community needs can and should be addressed by the CLA?

Positioning questions on the program model identifies where evaluative evidence might be found to address inquiry. Labeling on the model also helps to establish the relationship between program, implementation (processes), results, and evaluation. Question 1 “tests” the logic constructed during evidence-based planning. This question requires thoughtful connections be drawn across activity accomplishment, implementation fidelity, and the attainment of desired outcomes/impact. It addresses the overall effectiveness of the selected strategies and the related action in achieving the desired results. Question 2 examines implementation fidelity/variance as well as the scope, sequence, penetration, and quality of activities. Questions 3 and 4 focus on the extent to which outcomes and impact have been achieved. Question 5, like Question 1, should span the whole model to surface program improvement needs. Questions 1 and 5 are more reflective but are essential to improved effectiveness.

Figure 1.3 Community Leadership Academy (CLA) Program Evaluation Model



These evaluation questions can be very helpful in the initial design and development of the program, as they help to aim the program intervention. The next step is establishing indicators. Models also help in guiding the conversation and exploration needed to determine indicators or the measures of progress for an effort. These issues are addressed in greater detail in Chapter 5.

Limitations of Logic Models and Modeling

It is important to note that the proper reference, "logic model," is *no guarantee* of logic. While many models do demonstrate some modicum of logic, a logical representation does not equal plausibility, feasibility, or success. There is some danger in seeing a graphic display on paper and considering it "true." This notion of omnipotence stems from limited domain knowledge, vested interest, and lack of perspective. Typically, models do not take unintended consequences into account, although every program has side effects. The modeling process usually does not include program critics, and most stakeholders are not likely to be grounded in the research literature.

Realistically, even when program theory and logic are constructed and build on the insights of broad representative stakeholder groups, can anyone be sure who is right? Every model should be considered a draft. They are deterministic, incomplete approximations of what usually are more open systems. They provide the simple illustration that makes evaluation and program improvement more accessible to individuals and groups. The mere existence of a model does not mean that the model or

the plans it represents are ready for implementation or that it will readily deliver the intended results!

Chapters 2 and 4 tackle model improvement and development in greater detail. It is essential to note that a model is a graphic display of the program captured at one point in time. Models, we believe, should change to reflect best thinking and current evidence as these evolve. Creating and displaying variations of a model are experiences that can develop thinking about strategies/activities and results. This development is a critical process in model quality and, ultimately, in the feasibility of the efforts described.

We believe the greatest value of logic models is their use in an iterative, intentional process aimed at improving the thinking they illustrate. This is best done through a facilitated sequence with selected stakeholders. Obviously, logic models do not ensure plan implementation fidelity or quality. Nor do they remedy any of the many concerns about organizational structure and culture that can deeply affect program and organizational effectiveness. Important action steps associated with quality include identification of both assumptions and evidence used in models.

Models Begin With Results

Determining the results you desire is the first step in effectiveness, because knowing where you are headed is critical to picking the best route to use. In our experience, models begin with results. Results consist of outcomes and impact; each appears in a sequence over time. While impact is the ultimate end sought, sometimes synonymous with vision, outcomes are earlier indications of progress toward results. We think results are the place to begin when you are struggling with choices about strategies (with a theory of change) or activities (with a program logic model). It is important to avoid moving prematurely to specify what you want to do. In any change work, program design, or problem solving, specifying those outcomes most likely to occur soon and then those that will take more time to emerge helps determine what route (action path) might be best to use.

People commonly complain their work is both activity focused and frantic. Considerable time and effort are spent on a flurry of tasks that frequently lack a clear relationship to intended results. Logic models can assist in sorting priorities because they both rely on and help build a visual literacy that makes action and expected consequences clear. Through the models and modeling, stakeholders can identify potent strategies/activities likely to contribute to the results sought. And those with less (relative) value can be sidelined or discarded.

Logic Models and Effectiveness

In the workplace (and in life), almost everyone is interested in effectiveness. To that end, we provoke important thinking when we ask these questions:

- Are you doing the right work?
- Can you make better decisions?
- Are you getting superior results?

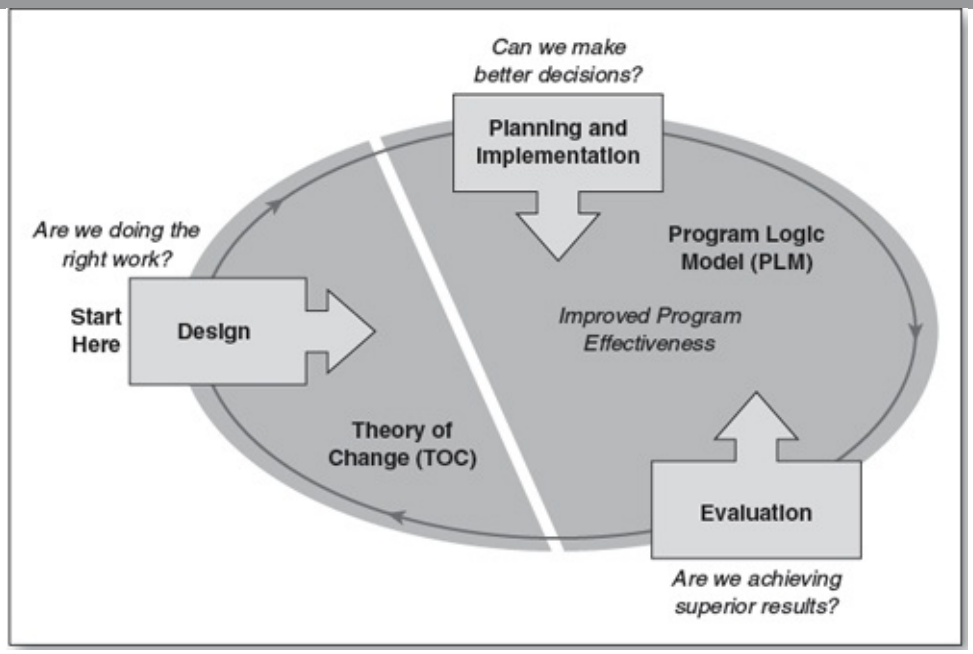
All of these questions apply in any context—whether it is in government or in the private or the nonprofit sector. They are among the most critical questions for managers and leaders because they focus on key levers that influence performance. We know from practical experience and assessment

that doing the *right work* along with *great decisions* secures *superior results*. Logic models can help with the design that ensures the right work, the plans and implementation that reflect better decisions, and the evaluation that tests both pathways and progress toward success. For these reasons, they are an exciting tool and process for anyone interested in more effective programs, projects, and organizations.

Figure 1.4 demonstrates key points of the design, planning, implementation, and evaluation that the two types of models can support. Theory of change models are most helpful during the design of a program or project. As plans or evaluation require greater detail, program logic models can make a substantial contribution to these later stages of work. The types of models and their uses form a continuous loop that can provide feedback about a program throughout its life cycle.

Logic models as both a tool and a strategic process offer considerable value to programs and, subsequently, organization effectiveness. They can be used for different purposes at different times in the life cycle of an idea (program, project, or change effort). Theory of change models can dramatically influence program planning because they rely on knowledge to offer choices about doing the right work. In this stage, the selection of strategies relative to results occurs. Program logic models help with more precise decisions about which activities in a given strategy are most effective. Program logic models can also be used to support evaluation design. They can assist in pointing to optimal areas of inquiry and help to determine whether progress is being made and what difference has occurred relative to results.

Figure 1.4 Effectiveness and Logic Models



Some organizations use logic models routinely. They can become a standard tool that promotes alignment and synergy. For example, evaluation can be designed and implemented more easily when a clear theory of change and program logic model have already been determined. These tools and related processes can also assist learning and dissemination in significant ways. Logic models and modeling can be vital elements in performance management because they rely on evidence, support informed decisions about strategy, and assist with assessment. Performance management seeks predetermined results and adapts actions to obtain them.

IN SUMMARY

Logic models are simply a visual display of the pathways from actions to results. They are a great way to review and improve thinking, find common understandings, document plans, and communicate and explicate what works under what conditions. We think theory of change models are distinct from program logic models in several important ways. Theory of change models present a very high-level and simple explanation of "do and get." Program logic models offer a detailed map that can be implemented when supplemented with work plans. In this chapter, we also distinguished between models as tools and modeling as a process. A quality feature of logic models is that they are evidence based. Logic models can be used for learning, improving, and greater effectiveness.

LEARNING RESOURCES

Reflection

1. In what circumstances can you use logic models in your work or field of study?
2. What benefits does each type of model provide? And to whom?
3. What do logic models display? And what is missing?
4. How are theory of change models and program models alike? Different?
5. What kind of logic models have you seen before? Which are most commonly used?
6. What current models/processes are commonly used for program design in your organization? What work cultures are best suited for logic models?

Application

Select and draw one of the following: promotion of a new brand of ketchup, a driver's training program, or a domestic violence awareness campaign. Have others independently draw the same project you select. What do all the drawings have in common? What areas are different? Why? When and how do these differences become reconciled? How did the levels of detail differ among the drawings? What can these drawings tell us about mental maps?

References and Supplemental Readings

Texts

Chen, H. (2005). *Practical program evaluation: Assessing and improving planning, implementation and effectiveness*. Thousand Oaks, CA: Sage.

Collins, J., & Hansen, M. T. (2011). *Great by choice: Uncertainty, chaos and luck—why some thrive despite them all*. New York: HarperCollins.

Fullan, M. (2001). *The new meaning of educational change* (3rd ed.). New York: Teachers College Press.

Funnell, S. C., & Rogers, P. J. (2011). *Purposeful program theory: Effective use of theories of change and logic models*. Hoboken, NJ: Wiley & Sons.

Kane, M., & Trochim, W. M. K. (2006). *Concept mapping for planning and evaluation*. Thousand Oaks, CA: Sage.

Murray, D. K. (2009). *Borrowing brilliance*: *The six steps to business innovation by building on the ideas of others*. New York: Gotham Books.

Murray, D. K. (2011). *Plan B: How to hatch a second plan that's always better than your first.* New York: Free Press.

Practical Concepts, Inc. (1971). *The logical framework. Approach and training materials developed for the U.S. Agency for International Development*. Washington, DC. Unpublished manuscript.

United Way of America. (1996). *Measuring program outcomes: A practical approach*. Alexandria, VA: Author.

W. K. Kellogg Foundation. (2001). *The logic model development guide*. Battle Creek, MI: Author. Retrieved December 1, 2011, from http://www.wkkf.org/knowledge-center/resources/2006/02/WK-Kellogg-Foundation-Logic-Model-Development-Guide.aspx

Weiss, C. H. (1995). *Evaluation* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Journal Articles

Bennett, C. (1976). *Analyzing impacts of extension programs, ESC-575*. Washington, DC: U.S. Department of Agriculture, Extension Service.

Dwyer, J. (1996). Applying program logic model in program planning and evaluation. *Public Health and Epidemiology Report Ontario, 7*(2), 38–46.

Fitzpatrick, J. (2002). A conversation with Leonard Bickman. *American Journal of Evaluation, 23*(3), 69–80.

Funnell, S. (1997). Program logic: An adaptable tool for designing and evaluating programs. *Evaluation News and Comment, 6*(1), 5–17.

Julian, D. (1997). The utilization of the logic model as a system level planning and evaluation device. *Evaluation and Program Planning, 20*(3), 251–257.

Julian, D. A., Jones, A., et al. (1995). Open systems evaluation and the logic model: Program planning and evaluation tools. *Evaluation and Program Planning, 18,* 333–341.

Sartorius, R. (1991). The logical framework approach to project design and management. *Evaluation Practice, 12*(2), 139–147.

Internet Resources

Davies, R. (2008). *The logical framework: A list of useful documents*. Retrieved December 1, 2011, from http://mande.co.uk/2008/lists/the-logical-framework-a-list-of-useful-documents/

Duigan, P. (n.d.). *Brief introduction to program logic models (outcome models)*. Retrieved December 1, 2011, from http://outcomescentral.org/programlogicmodels2.html

Evaluation logic model bibliography. (n.d.). Madison, WI: University of Wisconsin Extension Service. Retrieved December 1, 2011, from http://www.uwex.edu/ces/pdande/evaluation/evallogicbiblio.html

Israel, G. D. (2001). *Using logic models for program development.* Retrieved December 1, 2011, from http://edis.ifas.ufl.edu/wc041

List, D. (2006). *Program logic: An introduction.* Retrieved December 1, 2011, from http://www.audiencedialogue.net/proglog.html

McCawley, P. F. (1997). *The logic model for planning and evaluation.* Retrieved December 1, 2011, from http://www.uiweb.uidaho.edu/extension/LogicModel.pdf

2

Building and Improving Theory of Change Logic Models

This chapter identifies the basic elements of a theory of change logic model. They are evidence based and plausible. This chapter describes the steps to create and improve a theory of change model. It also names criteria for a “good” model.

LEARNER OBJECTIVES

- Identify basic elements of a theory of change model
- Identify the contributions a theory of change model lends to a change effort
- Create a simple theory of change model
- Apply critical review for theory of change model plausibility

Logic models offer an exciting way to combine narrative and graphics to display the mental maps people hold about a specific program or change initiative. These mental constructs are also sometimes called “idea maps.” While the process of creating a model can be solitary, there are significant benefits when models are generated in a small group among stakeholders with a shared agenda. Logic models can be used over the entire life of a change effort—their boundaries should be consciously determined by the participants who create the model.

Building a Theory of Change Model

Getting Started

While logic models can be used for many purposes, there are two basic types: theory of change and program models. Understanding these types is important to their development and use. The choice of which to use reflects whether the model needs to describe broad and general concepts about change or more detailed operational elements essential to design, plans, and management. It is possible to begin with either a program logic model or theory of change model.

We believe it is important that a program model always accompany a theory of change because the assumptions held in the theory of change have fundamental value for program operations and success. These assumptions should be consistent and anchor choices made in the development and selection of strategies to fulfill intended results. When assumptions are evidence based, then a single coherent logic and alignment can occur that enables success. Relying on knowledge, whether theory, research, practice, and/or literature, is essential to a good model.

Preferences and Styles

People vary considerably in what level of detail they prefer to describe their mental maps. This is an important consideration for those who lead the modeling process. Invariably, any small group will include people with a strong preference to start at a broad, high level and those who feel far more comfortable beginning with detail. Both approaches have value because the best program or change effort design eventually should display models with these features. Accommodating differences in how any individual approaches the display task is a common tension in the creation process.

Our aim is to guide you consciously from big ideas to finer points. For this reason, we provide a theory of change model description and example first, then a parallel representation of a program logic model in the next chapter. So that content matter does not confound the process, we have chosen to use community leadership development and health improvement for all model content in Chapters 1 through 5. A broad range of subject content is offered in the models found in Chapters 6 and 7.

Evidence Based and Plausible

Theories of change can be grounded either in an established claim with proof or in a hypothesis. Programs based on proofs are a replication of something that has worked. Hypotheses are rationales based on research literature that show promise of working and are therefore something worth trying. Programs based on hypotheses are innovations. If the theory of change is supported by a body of evidence, there is a stronger chance that the strategies chosen will secure the desired results. Frequently, however, this "standard" is overlooked. In the urgent fever to get to implementation, the design and plan quality can be shortchanged and rely, instead, on faulty assumptions, old practice, or little or no evidence.

We suggest practitioners construct the theory of change model with grounding it in literature, experience, or other evidence that promotes plausibility. Most theories of change will exhibit some degree of logic. Plausibility, however, is a more appropriate litmus test for work that has inherent opportunity cost. Later, in Chapter 3, we suggest that the program model must also be feasible if there are authentic intentions of securing results. During the construction of a change model, it is important to explore or discover what works under what conditions. This is about the choices made in selection of strategies relative to anticipated and therefore planned results. When constructing a program logic model, the realistic criterion of limited resources is also in play. Any program, project, initiative, or organization has some limits on time, talent, and financial resources. In the migration from theory of change to program logic model, users can shift their thinking from what "could work" to what "should work."

The Big Picture

A theory of change logic model offers the big picture of strategies that could generate your intended results (or impact). This construct is illustrated by Figure 2.1.

A basic theory of change model contains just two elements: strategies and results. The intent is to illustrate the connection between what you will do with what you hope to get.

Strategies reflect a choice of optimal actions (via activities or tactics) to secure intended results. They represent an allocation of resources focused on a clearly defined objective. Marketing, training, political advocacy, and fund development are examples of common strategies. This element describes your actions or what you plan to do.

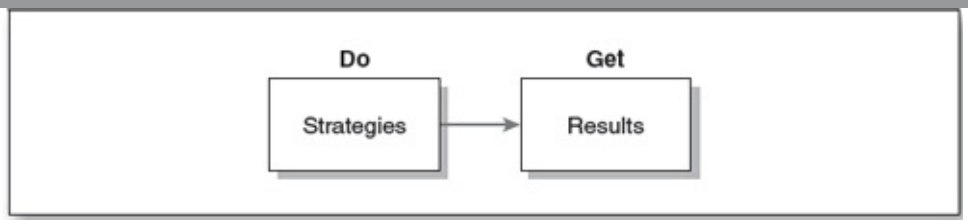
Strategy is the overall plan that gives coherence and purpose to the specific actions that organizations undertake. For some nonprofits, however, the meaning can be murkier and framed as an ambiguous aspiration. When we use the term *strategy*, we rely on an implicit but evidence-based assertion that connects means and ends. Wherever the word *strategy* appears in our illustrations and narrative, we assume that the "case" for selection is sound—in other words, that it has strong potential to secure impact. Later, in Chapter 3, we also use the term as an umbrella for nested clusters of activities (or tactics) that aim at specific single outcomes or clusters of outcomes.

Results reflect the long-term effect of strategies. They are the "get" from what we are doing. Results are ultimately secured through the change(s) generated by the preceding strategies. They can reflect a single outcome or multiple outcomes over time.

Multiple Strategies and Results

In reality, many programs are more complex than is shown in Figure 2.1. Most often, several strategies combined (over time) in a particular sequence yield results. And we generally both create and experience results as the net yield of several strategies working together. When displaying theory of change models, this can be challenging both to conceptualize and to represent. For example, to become proficient in a new language, it is most likely the combination of instruction, practice, and cultural immersion that generates proficiency. Likewise, to be a profitable cereal company may require a high level of competency in research/development, marketing, production, and distribution strategies. In addition, great health outcomes for neurosurgery may rely on expertise in diagnostics, surgical techniques, pre- and postsurgical care, and rehabilitation therapies. Because multiple strategies often contribute to results, a more complex representation of a theory of change might look like Figure 2.2. We call the path from each strategy to result a "strand."

Figure 2.1 Basic Theory of Change



Recall the theory of change model for the Community Leadership Academy (Figure 1.1). In that example, the outcome desired was more and better community leaders. This model described two simple strategies as essential contributions to the recipe: curriculum and experiences. An applied example of a multi-strategy model for securing improved health is displayed in Figure 2.3. Read from left to right, the theory of change suggests *if* we provide exercise, nutrition, stress reduction, and some other key strategies, *then* we will secure improved health for participants who follow the program. It is also important to note that strategies may interact (although not shown here). This theory of change represents a generalized construct for many health-improvement programs.

Figure 2.3 simply provides a gross summary of strategies and intended results for a health-improvement program. A theory of change model displays some of the underlying assumptions about change and is a view at 65,000 feet. This view is how a farm looks from an airplane window in contrast to the view from a tractor seat. It simply shows the specific strategies that the designer believes will achieve a desired result. Theory of change models are distinct in that they include assumptions (either explicitly or implicitly), offer the big picture of the bounded mental map, and name impact. Theory of change models do not provide the detail essential to action planning, implementation, or evaluation. They simply state what you plan to do and what you expect to get. It is easier to explore ideas and manipulate them at this stage. The why and how of these models are embedded in assumptions and eventually reveal themselves in the strategies selected. For example, in Figure 2.3, some of the underlying assumptions might include the following:

Figure 2.2 Multiple-Strategy Basic Theory of Change

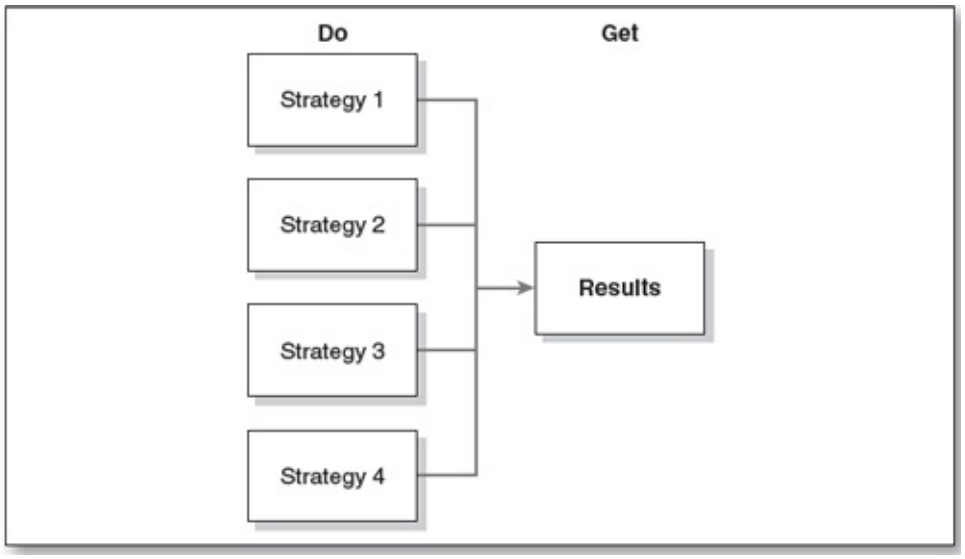
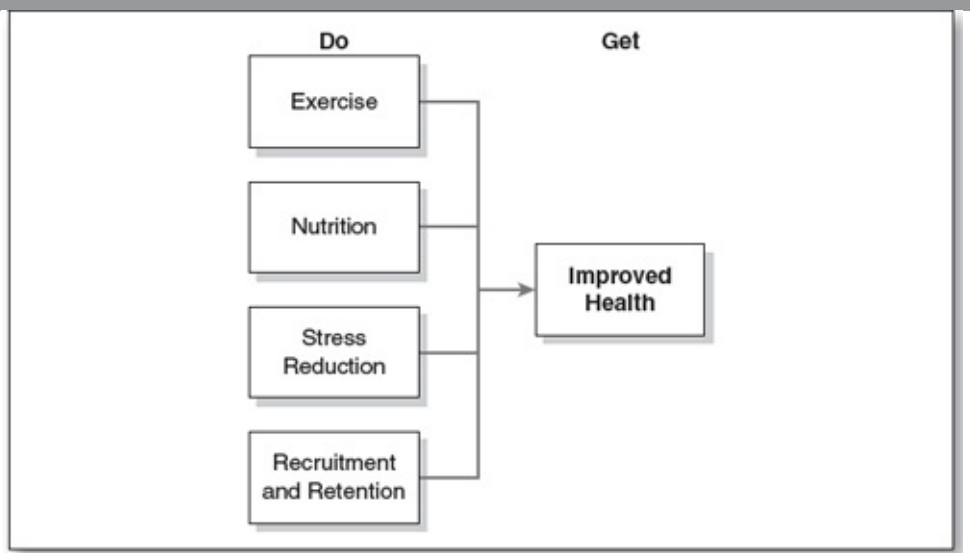


Figure 2.3 Health-Improvement Theory of Change



- Increased exercise and improved nutrition are known to contribute to improved health.
- Only those who participate in the program will achieve results. Participants need to be recruited.
- Stress may be a contributing factor to poor health.
- Participants' fidelity to the program is critical to achieve results. They will need parallel increases in awareness, knowledge, and skill in order to change behaviors that most impact health.

Realistic Models

Theory of change models should demonstrate plausibility. This means they "could work." Given the realities of limited time, as well as human and social resources, logic alone is inadequate. In fact, the logic displayed in a model can be uninformed or misinformed. For example, world peace is a tangible and clear desired result, but a theory of change that relies solely on communication (e.g., newsletters and websites) is not plausible in securing world peace. Or consider the desired result of hiring more mid-level scientists at your research institute. Are outreach strategies with local math and science teachers and students logical action steps? Yes, but meetings with those targets can be helpful only in a pipeline that can tolerate a decade of delay. It is not a best strategy given urgent human

resource needs this week and next month.

Knowledge and Assumptions

So far, we have described a basic theory of change model for improved health that is specifically composed of *doing* (strategies) and *getting* (results). Each of us brings along some other contributions to our theory of change that are more closely held. While not often named, we commonly bring what we *believe* (our assumptions) to theories of change, too. The most viable assumptions used to select strategies are rooted in knowledge, and that knowledge generally includes research, practice, and theory. Figure 2.4 illustrates the knowledge base for beliefs that precedes assumptions and strategies in a theory of change.

It is critical to recognize the role of beliefs. They are important determinants in choices about strategies for both creating and improving a theory of change model. Figure 2.4 illustrates how knowledge and beliefs contribute to a program's underlying or driving assumptions. Assumptions are often informed by knowledge, which can include research, practice, and theory. We find that making assumptions explicit can improve our chances for program success. Sometimes assumptions are informed by experiences, habits, or values that do not also reflect knowledge. Mediating or moderating factors such as program context are useful to consider as barriers or facilitators to program success at this stage. Dogma, misinformation, ignorance, and wishful thinking are hazards here. Often, assumptions can differ significantly among and between both stakeholders who create and those who execute. They can also dramatically affect how problems are identified and framed. For model utility, it's important to cite what problem(s) we're trying to solve and find a way to frame a problem so that it is meaningful to others.

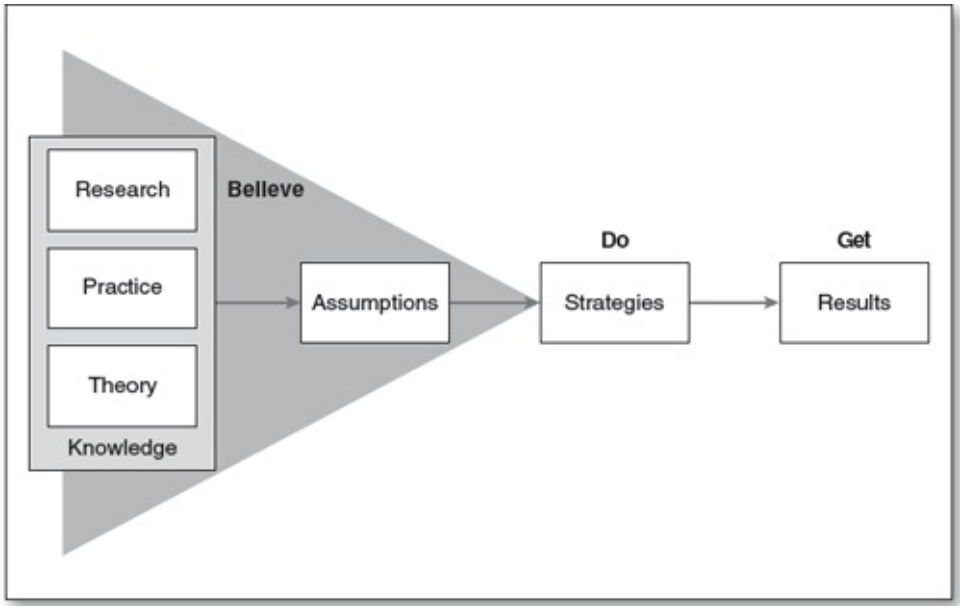
Modeling can help surface vital differences among stakeholders and offer a disciplined process for resolution based first on plausibility, then on feasibility during subsequent versions. This is why, in part, modeling offers considerable value beyond the construction of models alone. It's important to note that dialogue is critical to exploration of knowledge and assumptions that are embedded in models. Engaging multiple stakeholders is critical to quality as well as meaning.

However, modeling can be an uncomfortable process because it nearly always raises differences among participations' perceptions, experience, knowledge, training, and other factors. Identifying and negotiating these can be challenging. This navigation is most easily done with external assistance. If not, then it can be useful to explicate the criterion for decisions about model content and display. Simply who participates in modeling can be loaded with politics, since it will very likely influence the model content.

Action Steps: Creating a Theory of Change Logic Model

We recommend that people begin building a theory of change model by specifying their intended results. Most often, it is easiest to be clear first about the intended results. Our experience with clients is they *know* what they want to accomplish. They often label this as desired results.

Figure 2.4 Informing a Theory of Change



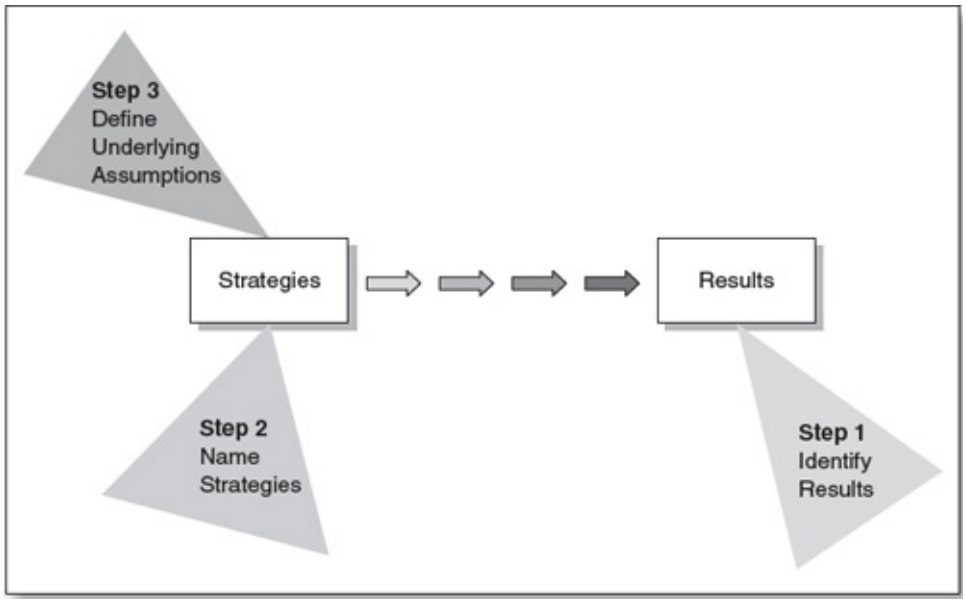
Once results are named, we suggest identifying the strategies required to achieve the results you seek. Strategies are about *how* intended changes will occur. And assumptions are the preceding knowledge: the research, practice, and theory that inform choices about strategies. They significantly influence which strategies are chosen as pathways to your intended result.

So the steps to generate a theory of change logic model are ordered in this way:

1. Identify results desired.
2. Name the strategies that will deliver your intended results.
3. Define the assumptions (see Figure 2.4) that support your specified strategies.

Figure 2.5 displays these actions in a three-step sequence. Most theory of change models generally do not display underlying beliefs or assumptions. Nevertheless, these are important elements to explore consciously when creating a theory of change. We suggest those assumptions are named in association with the theory of change. Assumptions can simply be a bulleted list on the same page or reverse side. Remember, a theory of change model is simply one representation of the “truth,” not a substitute for it. The model draft becomes a place for starting discussion and testing meaning, coherence, assumptions, and plausibility. Engaging others in modeling offers the opportunity for critical review and improvement over time through the generation of versions. By starting with a theory of change model, it is easier to arrive at shared understanding of what your program will do and can achieve.

Figure 2.5 Steps in Creating a Theory of Change Model



Improving Theory of Change Models

We offer several common processes to consider as you explore iterations of your theory of change model. While improvement is definitely not limited to these suggestions, an application of these four will likely contribute to the development of any attempt:

- Engage multiple stakeholders.
- Share explicit assumptions.
- “Toggle” or test alternative content in model versions.
- Explore promising practices and consider benchmarking.

Multiple Perspectives

People hold and operationalize theories of change in both their work and personal lives. Most experienced parents, for example, have a recipe that contains the primary strategies they believe are vital to parenting a “good kid.” Parents can vary considerably, however, in what they mean by a good kid. Likewise, even if we agree on what a good kid might know and be able to do, it is highly likely that from one parent to the next, there will be many variations on parenting strategies to ensure the “good kid” result. This example suggests the considerable importance of ensuring that all stakeholders in your program or change effort are specifying results and the strategies needed to get there with the same meaning and level of specificity. Developing and improving the theory of change for your program is one way to begin the conversations needed to reach shared understanding.

In the health example we started this chapter with (see Figure 2.3), we identify improved health as the result sought. It is important to ensure that everyone has a highly consistent understanding of what “improved health” means. To one participant, it may be weight loss. Another could interpret it as normal blood pressure. Others may feel improved health is a combination of several positive outcomes. If you ask a half-dozen people what improved health means to them, it is quite likely there will be variation in their individual answers.

Specifying what the results mean, such as improved health in this example, becomes critical for

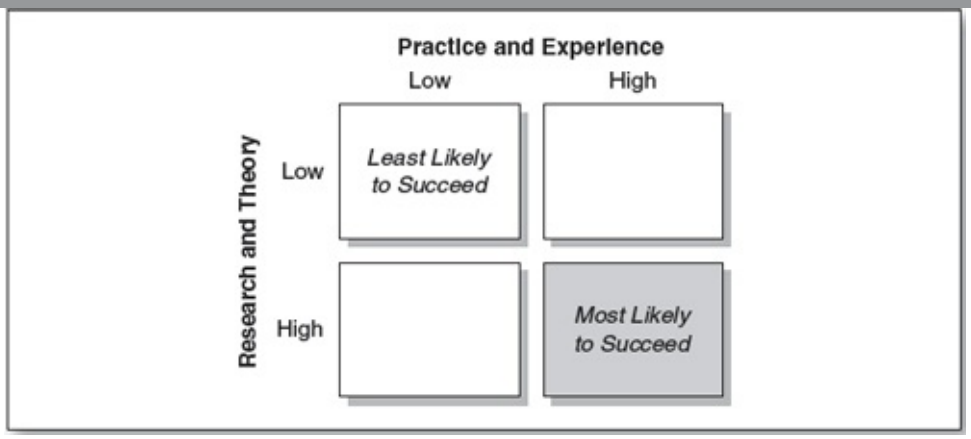
your program design as well as essential for measuring progress toward and determination of results. If the meaning and measures of results are shared and understood similarly, then it is more likely strategy choices will align with your intended impact. It is more likely indicators of progress will be appropriate, too.

"Unpack" and Share Assumptions

The most significant opportunity to improve theory of change models lies in unpacking the knowledge and beliefs employed in assumptions. This means, in practice, that any theory of change for a program or social change effort should be grounded in knowledge. If results are connected to strategies that reflect research, practice, theory, and experience, there are far greater chances for success than with strategies that lack this grounding. Figure 2.6 displays a combination of the elements found in knowledge. A combination of little or no practice, experience, research, and theory in your model means the effort it represents is an idea that may be highly innovative but is not likely to succeed. A combination of practice, experience, research, and theory in your model suggests the effort it represents is more likely to succeed.

The best theory of change model *deliberately pursues* alignment among research, theory, practice, and experience. The stronger models build on the knowledge and good work that precede them. These substantiated models and their associated programs or social change efforts gather and then use codified knowledge from prior efforts to inform effective program design. Figure 2.6 describes the geography of choices and emphasizes that relative success relies on a depth of practice, experience, research, and theory.

Figure 2.6 Success in Theory of Change Models



Toggling

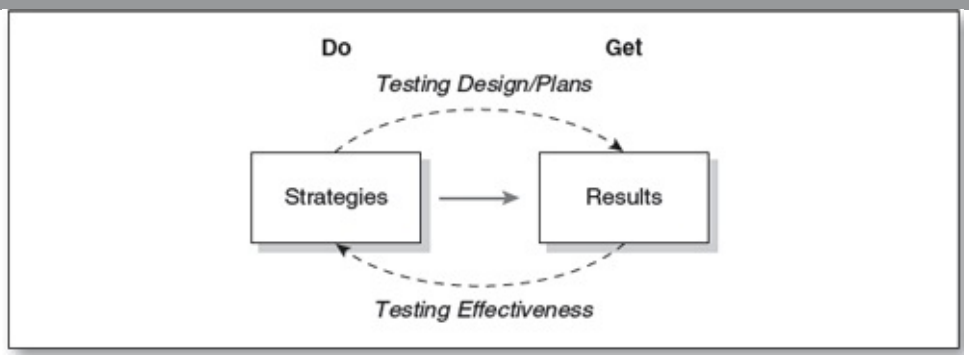
Another practical way to improve models is what we refer to as "toggling." We define toggling as finding the optimal fit between a selected set of strategies and plausible results. For example, options to improve school nutrition could include planting a garden, removing vending machines, or changing the lunch menu. Toggling "tries on" options and makes a best choice. In this critical review, the model builder is experimenting with the best combination of strategies to secure the results sought. Inviting others to join in this iterative tactic in real time can be very productive. Sometimes it is best to refine or focus the specified results. For example, a program or social change effort could specify one of these results: "end childhood obesity" or "create schools with improved nutrition

choices for children." During toggling, it may become apparent the result is not plausible. Often, ambitions are greater than what is feasible. It is important to guard against grand ambitions. They are possible hazards that can result in flawed models. Figure 2.7 demonstrates the interactions between strategies and results as choices are made in the final determination.

This figure displays the testing that occurs in an effort to determine the best combination of strategies to secure your intended results. Once a preliminary theory of change model is drawn, the modeling process begins. The model is tested though iterative cycles of inquiry. The basic questions addressed are "Are the results focused and narrow enough to discern optimum strategies?" and "Is the connection between the strategies named and the results desired as strong and direct as needed to be effective with the population of interest?"

Toggling can also involve a review of both the duration and sequence for chosen strategies. The objective is to specify a model that is plausible. The specifics of what is feasible are developed in the program logic model (and are discussed in following chapters). People sometimes mention confusion when they talk about the "fog of war." In our experience, there is considerable "fog" or ambiguity in program design and planning. A clear and plausible theory of change is the foundation of intended work and requires considerable attention and scrutiny. Just as with the Cheshire Cat in the story *Alice in Wonderland*, if you do not know where you are going, any road will do. Fuzzy, ambiguous theories of change rarely net the success intended.

Figure 2.7 "Toggle": Improving Theory of Change Models



Promising Practices and Benchmarking

It is valuable to explore strategies and results of programs (or social change efforts) similar to yours. A better understanding of the rationale for their strategies and related results can deeply inform your design choices. In the private sector, this is often referred to as "benchmarking," a systematic discovery and comparison process that can be a simple way of *both* clarifying and improving your design early on. In benchmarking, one simply looks around at promising practices to inform and then make good choices about your own. Benchmarking may include a review of documents, a survey, and discovery with peers/competitors. It establishes the status of other efforts, programs, or organizations on specified features or issues. The big questions benchmarking can help answer are what others are doing and why? Chapter 7 provides some examples of archetypes, general recipes that are evidence based, that can also help in your early efforts to construct a model.

School-improvement efforts, for example, often include quality instructional and assessment practices among their many strategies aimed at teachers to, ultimately, improve student academic achievement. There is evidence these strategies can positively influence student academic achievement. It follows that a school-improvement effort, then, might be more successful if these strategies (or some adapted version) are included in the program plan. The converse is also true. A

school without these strategies as standard operating procedure or as part of a new plan is less likely to secure improved student academic achievement. A theory of change can show what you are and are not thinking about. The accompanying modeling process provides the opportunity to reflect and improve on the underlying logic for your program.

Group Process

Consider involving others in co-creating a theory of change model. Let's build on the improved health example from earlier in this chapter and aim at obesity prevention. How could you guide a group in exploring a countywide program design intended to maintain healthy weight and prevent obesity? In tackling this question, it's important to anticipate the need for data prior to the convening. Gathering and sharing information about research, practice, and theory makes for a much smarter dialogue. It's also possible to include experts who bring data and field experience literally to the table. In general, a guided group process could follow these action steps in a daylong work session or over a series of meetings.

Remind participants, again, of the intention of the work to establish a theory of change that articulates a single relationship between results and strategies. The assignment is to identify strategies most likely to get the planned results given the context, target audiences, and other factors. So it's important, first, to secure a shared understanding of the results intended. Ask all the participants, on their own, to identify the result they want the program to achieve in the next 3 years. It's vital to specify a period to bound the program effort. Have participants post directly (or transfer) their intended results for public sharing. This first posting will likely display a range of expectations and assumptions about what results are desired. Reconcile those that are similar and do discovery on what's "underneath" the postings.

Through dialogue, find the result that the group believes is most feasible given the context. Features of context might include historical and current rates of obesity and overweight, definitions of those terms, an inventory of physical fitness options and their physical proximity, socioeconomic data for the county population, and access to healthcare and weight loss resources, along with aspects of prevailing culture. Create a list of resources, including specific funds that could be designated for the program. Your participants can probably name many other features of context. These are the influences as well as data that help to inform the current reality. It may help to post facts and features of context so they are present to dialogue. This portion of the process should rely on facts as well as perception.

Then, consider your target audience(s). Will your program effort be designed to influence males, females, teens, young adults, all residents between 10 and 50 years of age? Or some combination of these characteristics? Employ learning from the context discussion to inform your choices. Be aware the selection you make may require you to adjust the group's intended result. The effort to name and understand the results is well worth the effort because it frames subsequent action steps.

Last, ask participants to name strategies that the program should include. Post them. Often, people will name tactics or specific activities. Getting to the same level of detail just requires some modification. This is another great opportunity to insert more information. For example, identify independent research, practice, and theory shown to influence weight management. Share some benchmarking information from effective programs that have already tackled this same challenge and those that failed to make progress. Be sure to include their costs and related organizational resources.

Ultimately, the group should determine a clear list of strategies and specified results that are not simply feasible but optimal—that is, highly likely to secure the impact. This may require some

"toggling." Use the Guiding Questions (below) to critically review the work of the group. Look forward to Chapter 6 and review the New York state Healthy Weight Partnership. It offers some great ideas about strategies and results (defined by their mission and vision). The NY model cites target sectors/settings to segment their program plans since the work is focused on all state residents.

As you construct, then review a theory of change, the following questions may be useful:

Guiding Questions for Reviewing a Theory of Change Model

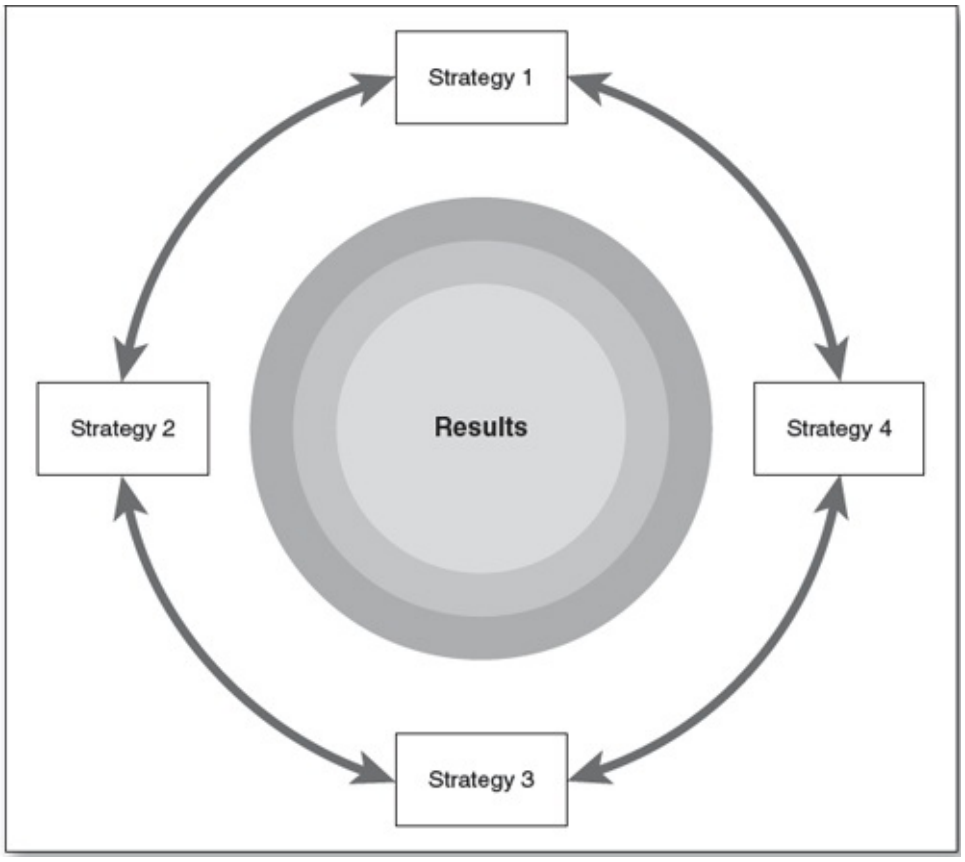
1. Are the results specified with shared meaning among all stakeholders?
2. Did we uncover our assumptions and carefully examine research, practice, and theory as the grounding for our choices in strategies?
3. Did we "toggle" between strategies and results to ensure plausibility given our assets and limitations?
4. Have we carefully reviewed similar programs to learn what strategies worked under what conditions to secure results?
5. Does the model clearly show the relationship of strategies to results?

Nonlinear Theory of Change Models

Theory of change logic models are not always displayed in a linear fashion (as they have been in the text so far). Realistically, few theories, programs, or change efforts occur in a precisely linear sequence. The world is much more complicated and integrated than the simple, step-by-step actions and reactions as drawn here. Most change occurs iteratively, or in cycles, and with multiple interactions among many features. Any change is also connected to a much larger system than illustrated by the theory of change model. In our experience, systems and holism can be difficult to manage and even harder to evaluate or communicate. In generating a theory of change, it is important to represent how change occurs as an aspect of a far more comprehensive and vast geography. When using a systems view, it is important to consider the key leverage points or strategies that are most influential given time, expertise, and resources. A simple example of a nonlinear theory of change logic model is shown in Figure 2.8.

In Figure 2.8, the four strategies that contribute to results occur in a specific sequence over and over again. Their interaction contributes to the center target: results, an aggregate of progress over time. The intersection and influence of external issues and/or the environment can be illustrated as well.

Figure 2.8 Nonlinear Theory of Change Model



In the nonlinear theory of change model, Figure 2.9 represents an alternative view of the Community Leadership Academy theory of change model shown earlier. Through two strategies identified here—curriculum and experiences—this change effort expects to produce more and better community leaders and, ultimately, community development. The curriculum, the experiences, and the participants interact. Chapters 6 and 7 also provide some additional examples of nonlinear models.

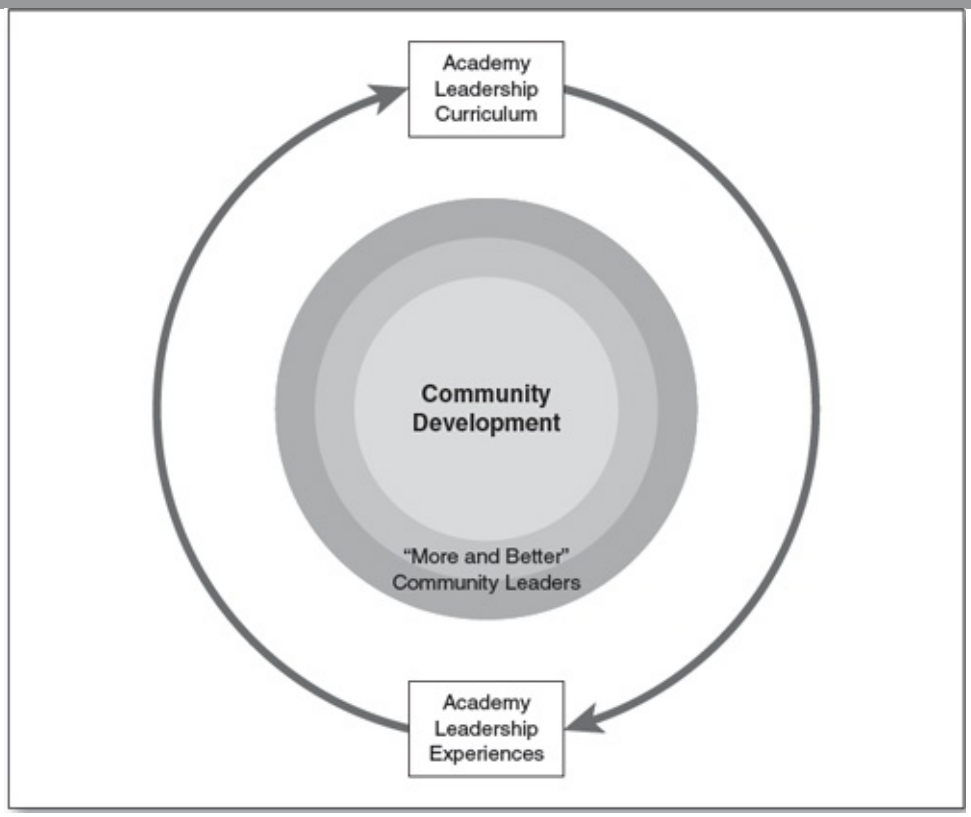
Doing the "Right Work"

In Chapter 1, we mentioned effectiveness and three critical questions:

- Are you doing the right work?
- Can you make better decisions?
- Are you getting superior results?

The first question was about the right work. This is about attending to making the strongest, most direct and plausible connection between your strategies and results. It is about the focus of time, energy, talents, and resources in relation to your specified success. Eventually, right work is also about detailing those specific activities that are subsumed by each strategy that is chosen for display in the program logic model. Giving conscious attention to the criterion used in selecting strategies at this stage, and again later, will identify how implementation can make a big difference in the likelihood that your program will secure results. The right work is clarified and confirmed if there is a shared understanding of the problem you plan to resolve and there is agreement on how it can be accomplished. Specificity here, on the front end, contributes to the results you and your colleagues intend to secure. Ambiguity can doom the best-intentioned efforts to failure.

Figure 2.9 Community Leadership Academy Nonlinear Theory of Change Model



If your end result in a construction project is a great house, then cooking and sewing probably are not the most relevant strategies. However, planning with well-detailed blueprints as well as appropriate purchasing (e.g., quality lumber) and contracting should be ripe for your attention. It is surprisingly easy to spend time on the wrong work. It can be an unconscious or conscious choice. Theory of change models should display planned results and specify the most relevant and influential strategies to secure the results. The strategies are determined from a universe of possibilities. Often, people include strategies (and later, activities) they have always done or are most familiar with doing. If replication is intentional, then repeating what has been done before might be appropriate. As time passes and knowledge changes, however, results may require we use what has been learned about new or different strategies (and activities) to be more efficient and effective. Remember, a theory is only as good as its last test.

Tough Questions

Of course, there are many ways to secure a named and intended result. Discarding strategies/activities that are peripheral, modest contributors or less than optimal in potency can focus limited resources. Models and their iterations can develop a disciplined way of thinking that contributes to new understandings about what will generate progress toward results. Once results are specified, the discovery and discussion that should be encouraged during your modeling attends to these two big questions:

- What are the many ways we could resolve this challenge?
- Then, what are the most effective and efficient ways to secure results?

Subsequently, as model versions are explored, it is important to inquire further. For example, are

we doing something that has a reasonable chance of working? Are we doing something that should be done? Are we clear enough about the work that we have shared expectations for what it includes and can yield? How does our model rely on research, practice, theory, and/or literature? We know that the politics of power and dynamics of resources often preclude these conversations. A predisposition to activities and busyness can overwhelm a disciplined and interactive process, too. However, the benefits and relative value of getting things right at the start are considerable. The opportunity cost or waste in missing this step is huge.

IN SUMMARY

Logic models display mental maps people hold about cause and effect. Combined, theory of change coupled with program logic models are the most potent design prescription. Theory of change models specify and link strategies with results. Most change efforts require multiple strategies. Knowledge is a critical input for models and can include research, practice, and theory. What people believe affects the content and format of models. Improving theory of change models requires multiple perspectives, unpacking assumptions, shared language, toggling, and the exploration of promising practices.

LEARNING RESOURCES

Reflection

1. What role do assumptions and beliefs play in a theory of change model?
2. How can you test a theory of change model for plausibility? Why bother with this step?
3. Are there blind spots in the modeling process? If so, what are they?
4. What are the implications of a change model that relies on a hypothesis versus one based on a claim with proof?
5. What are some ways that theory of change models can be improved and/or developed?
6. What challenges do complex and highly interactive systems present in a theory of change model? Where and how do you bound the presentation of a theory of change model?

Application

1. Have a conversation:

   Ask colleagues to share their beliefs about parenting (or their mothers' or fathers' beliefs) to ensure a happy, confident, successful young adult. From this conversation, draw a theory of change. What are their most important strategies? Can you identify their beliefs, values,

   A. assumptions? Do they cite any evidence for their choices? Is research, practice, or theory part of their explanation? How are their views similar to or different from yours? Do they have a shared understanding and agreement about parenting with their spouse (or among their

parents)? How does your response to these questions influence the model?

B. Ask a friend or colleague to share a recipe for marketing a new car model. What are the most important strategies for ensuring profit? What evidence supports their choice of strategies? How do assumptions inform their theory of profitability? How does your response to these questions influence the model?

2. Ask several people to list the many ways that "improved health" might be described. Why does this outcome/result have different meanings? Could these differences influence modeling?

3. Find a news article that describes a change effort (in a government, nonprofit, or private sector). Draw it. Can you detect the efforts underlying theory of change? How was it informed: based on a claim or a hypothesis?

4. Considering the drawings from Questions 1 and 3, how do choices of strategies influence the likelihood of achieving your intended results? What changes, if any, could be made to improve the plausibility of these models?

References and Supplemental Readings

Texts

Bickman, L. (1987). The functions of program theory. In L. Bickman (Ed.), *Using program theory in evaluation. New directions for program evaluation, 33*, 5–18. San Francisco: Jossey-Bass.

Bono, E. (1999). *Six thinking hats* (2nd ed.). New York: Little, Brown & Company.

Chen, H. T. (1994). *Theory-driven evaluations.* Thousand Oaks, CA: Sage.

Donaldson, S. I. (2007). *Program theory-driven evaluation science: Strategies and applications.* Mahwah, NJ: Lawrence Erlbaum.

Porter, M. E. (1995). *Competitive advantage: Creating and sustaining superior performance.* New York: Free Press.

Reisman, J., & Gienapp, A. (2004). *Theory of change: A practical tool for action, results and learning.* Baltimore: Annie E. Casey Foundation. Retrieved December 7, 2011, from http://www.aecf.org/upload/PublicationFiles/CC2977K440.pdf

Scheirer, M. A. (1987). Program theory and implementation theory: Implications for evaluators. In L. Bickman (Ed.), *Using program theory in evaluation. New directions for program evaluation,* 33, 59–76. San Francisco: Jossey-Bass.

Weiss, C. H. (1995). *Evaluation (2nd ed.).* Upper Saddle River, NJ: Prentice Hall.

Weiss, C. H. (1995). Nothing as practical as a good theory. In J. P. Connell, A. C. Kubisch, L. B. Schorr, & C. H. Weiss. (Eds.). *New approaches to evaluating community initiatives: Concepts, methods and contexts* (pp. 65–92). Washington, DC: Aspen Institute.

Wholey, J. S. (1987). Evaluability assessment: Developing program theory. In L. Bickman (Ed.), *Using program theory in evaluation. New directions for program evaluation, No. 33* (pp. 77–92). San Francisco: Jossey-Bass.

Journal Articles

Birckmayer, J. D., & Weiss, C. H. (2000). Theory-based evaluation in practice: What do we learn? *Evaluation Review, 24*(8), 40–43.

Bolduc, K., Buteau, E., Laughlin, G., Ragin, R., & Ross, J. A. (n.d.). *Beyond the rhetoric: Foundation strategy.* Cambridge, MA: Center for Effective Philanthropy. Retrieved December 7, 2011, from http://www.effectivephilanthropy.org/assets/pdfs/CEP_BeyondTheRhetoric.pdf

Chen, H. T., & Rossi, P. (1983). Evaluating with sense: the theory-driven approach. *Evaluation Review, 7*(3), 283–302.

Connell, J. P., & Kubisch, A. (1998). *Applying a theory of change approach to the evaluation of comprehensive community initiatives: Progress, prospects and problems.* Washington, DC: Aspen Institute. Retrieved December 7, 2011 from http://www.dochas.ie/Shared/Files/4/TOC_fac_guide.pdf

Donaldson, S. I. (2001). Mediator and moderator analysis in program development. In S. Sussman (Ed.), *Handbook of program development for health behavior research and practice* (pp. 470–496). Thousand Oaks, CA: Sage.

Fullan, M. (2006). *Change theory: A force for school improvement* (Seminar Series Paper No. 157). Victoria, Australia: Centre for Strategic Education. Retrieved December 7, 2011 from http://www.michaelfullan.ca/Articles_06/06_change_theory.pdf

Kramer, M. R. (2001, May/June). Strategic confusion. *Foundation News and Commentary, 42*(3), 40-46.

Monroe, M. C., Fleming, M. L., Bowman, R. A., Zimmer, J. F., Marcincowski, T., Washburn, J., & Mitchell, N. J. (2005). Evaluators as educators: Articulating program theory and building evaluation capacity. *New Directions for Evaluation, 108*, 57–71.

Rogers, P. J., Petrosino, A., Huebner, T. A., & Hacsi, T. A. (2000). Program theory evaluation: Practice, promise, and problems. *New Directions for Evaluation, 87*, 5–13.

Sridharan, S., Campbell, B., & Zinzow, H. (2006). Developing a stakeholder-driven anticipated timeline of impact for evaluation of social programs. *American Journal of Evaluation, 27*(6), 148–162.

Internet Resources

Sharpe, M. (2009) *Change theory.* Muncie, IN: Ball State University. Retrieved December 7, 2011 from http://www.instituteforpr.org/wp-content/uploads/ChangeTheory-1.pdf

For a comprehensive website and online suite of tools sponsored by ActKnowledge and the Aspen Institute on Community Change, see the following:

Anderson, A. (n.d.). *A community builder's approach to theory of change: A practical guide to theory development.* New York: Aspen Roundtable on Community Change. Retrieved December 7, 2011, from http://www.dochas.ie/Shared/Files/4/TOC_fac_guide.pdf

Theory of change. (n.d.). Retrieved December 7, 2011, from http://www.theoryofchange.org

3

Creating Program Logic Models

This chapter identifies the basic elements of a program logic model. Generally, these models have enough detail to support design, planning, management, or evaluation. This chapter describes a program logic model example and the action steps to create a model with a small group.

LEARNER OBJECTIVES

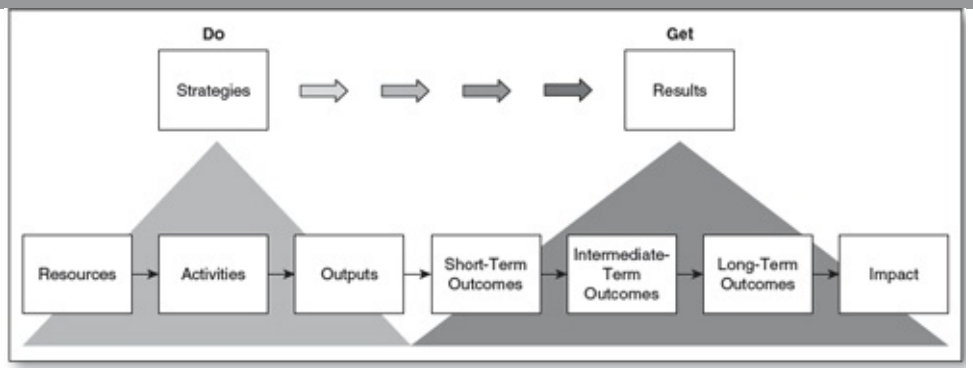
- Describe the relationship between theory of change and program logic models
- Identify basic elements for a program logic model
- Create a simple model
- Recognize limitations of display

From Theory of Change to Program Models

Theory of change logic models are literally the foundation for program logic models. When well developed, they can ensure intellectual rigor for program logic models. Figure 3.1 illustrates the relationship of a theory of change model (composed of strategies and results) to the primary elements of a program logic model.

Strategies reflect the resources, activities, and outputs needed to achieve results. Results reflect the sequence of outcomes over time through impact. Outcomes (for individuals) are generally progress in changes in awareness, knowledge, skill, or behavior among targeted audiences. There are also outcomes for organizations and systems. Although a plausible and evidence-based connection can be established, impact is often well beyond the scope (or feasibility) for the program being modeled. Together, outcomes, which are closer to the effort, of multiple strategies plus impact (further away) make up results. While program logic models are often built on a theory of change, it is also possible to infer a theory of change from a program logic model.

Figure 3.1 Relationship of Program and Theory of Change Models



Assumptions Matter

It is important to be aware that specific assumptions are not illustrated in Figure 3.1. Recall that assumptions are informed by beliefs and knowledge. Too often, program models are built without the benefit of explicitly naming the assumptions and underlying theory of change. This omission can help explain why tremendous conflict, even chaos, can erupt during program development, planning, implementation, or assessment. In the absence of explicitly named assumptions, either a clear theory of change does not exist or people hold multiple and conflicting variations that reflect their deeply held views about what should/could work and why. This can lead to diffuse or dilute programs that lack the focus and intensity needed to produce intended results. Because of these implications, omitting this “foundation” for your idea, program, or social change effort undermines its potential

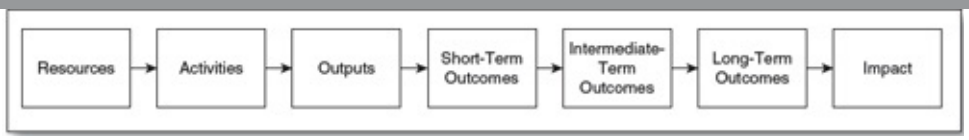
for success.

As noted previously, conceptualization and learning styles differ from person to person. Organizational culture can also affect how design, planning, monitoring, and measuring occur. Given these practical issues, we strongly suggest that both theory of change and program logic models eventually be created to form the foundation of shared meaning for all aspects of the program. The sequence in which they are developed certainly should and will reflect the stakeholders' preferences.

Key Elements of Program Logic Models

Program logic models display what an existing idea, new program, or focused change effort might contain from start to finish. The elements in a program logic model consist of the recipe for a bounded investment of financial and social capital for a specified result. The level of detail increases so that the relationships shown by the model illustrate essential linkages needed to make a plan fully operational for each of the strategy strands identified in the theory of change. The primary elements for each strand of a program logic model include resources, activities, outputs, outcomes, and impact. Figure 3.2 is a template of the elements for most program logic models.

Figure 3.2 A Basic Program Logic Model



These program logic model elements are defined as follows:

Resources are essential for activities to occur. They can include human, financial, organizational, community, or systems resources in any combination. They are used to accomplish named activities. Sometimes resources are called inputs.

Activities are the specific actions that make up the program. They reflect tools, processes, events, technology, and other devices that are intentional in the program. Activities are synonymous with interventions deployed to secure the desired changes or results.

Outputs are what specific activities will produce or create. They can include descriptions of types, levels, and audiences or targets delivered by the program. Outputs are often quantified and qualified in some way. They simply characterize the application of activities with selected audiences.

Outcomes are about changes, often in program participants or organizations, as a result of the program. They often include specific changes in awareness, knowledge, skill, and behavior. Outcomes are dependent on preceding resources, activities, and outputs. Sometimes outcomes are parsed by time increments into short, intermediate, and long term. Time spans for outcomes are relative and should be specified for the idea or project described. However, short term is often 1 through 3 years, intermediate-term outcomes 4 through 6 years. Long-term outcomes might be achieved in 7 through 10 years. The intervals specified for any given model would depend on the size and scope of the effort.

For example, a small-scale project such as an adult education typing class in one location might produce knowledge and skill outcomes in 6 weeks, where behavioral changes such as use or changes in employment might take somewhat longer. Alternatively, a program targeting changes in global water quality might specify changes in the awareness and knowledge of international policymakers within 1 to 3 years; actual environmental improvements might not occur within decades. Typically, dividing the project duration into thirds works pretty well as a starting point. Relying on a literature

or other evidence base can help inform what is feasible.

Being clear about timing and expected results is important. The time span for outcomes is project specific. Time is one of several important considerations. The logical sequencing of any given outcome chain matters, too. Think about what will happen first, then what is likely to happen next. Also keep in mind that the sequence may or may not be lockstep. Under some conditions, there may be different points of entry into a sequence. The important thing is to explore the interconnections and dependencies that do exist among the outcomes and impact you specify.

Impact is the ultimate intended change in an organization, community, or other system. It carries an implication about time. It varies in its relative timing to the actual program or change effort. Sometimes impact occurs at the end of the program, but more frequently, the impact sought is much more distant. For some efforts, this may mean impact can be cited in 7 through 10 years or more. This can have important implications, as it is well beyond the funding cycle for many typical grant-funded programs or the patience of many managers or politicians. The logic model is one way to show how the work you can do within these constraints may contribute to a larger, grander impact.

The “planned work” of a program logic model includes resources, activities, and outputs. These are the essential elements that are used to secure results or make change happen. The “intended results” include what the program produces: outcomes and impact.

Nonlinear Program Logic Models

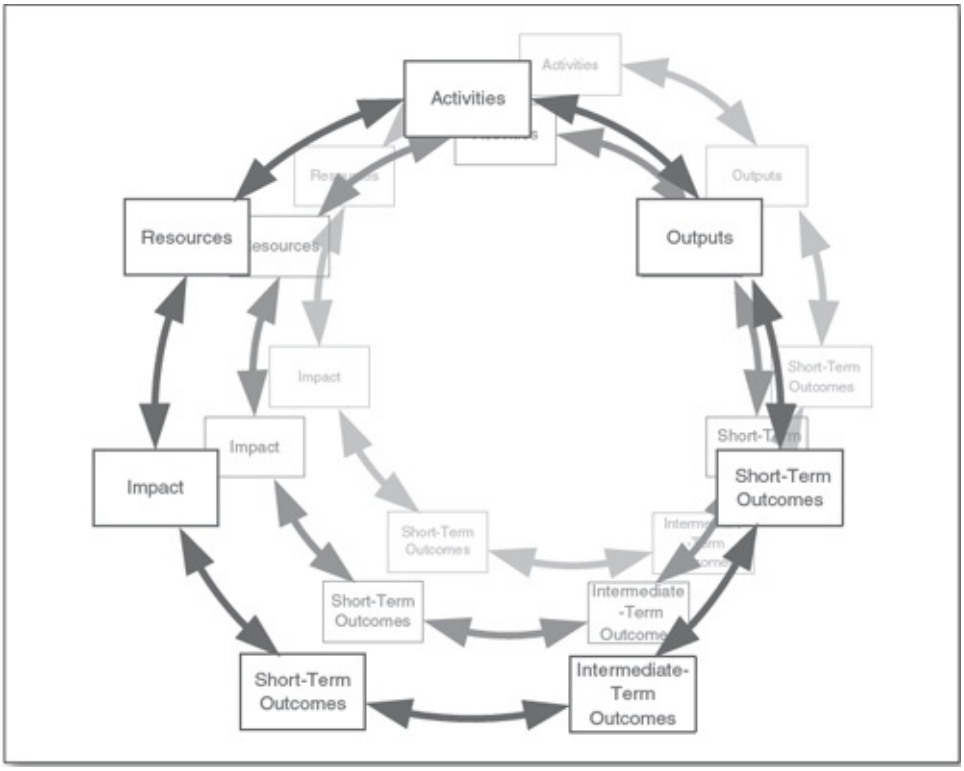
Just as in theory of change models, very few ideas, programs, or projects actually occur in a linear progression. Purposely, to aid learning, we simplified the display of elements as a straight sequence. Reality suggests cycles, iterations (additional attempts), and interactions are very common. This more organic development is shown in Figure 3.3.

In this circular display, there is no specific starting point. Although the logic model elements are constant, the work of design, planning, managing, or evaluating might begin with any element. In addition, this view shows how cycles of the same activity might occur over time. Keep in mind that the illustration groups activities together. A more detailed view could be staggering to portray. Sometimes, capturing reality in a display impedes communication.

Hidden Assumptions and Dose

A program logic model displays the elements that are most critical to establishing and operating a program or social change effort. It specifies the activities and their often interdependent relationship as well as what they are expected to generate. Program logic models do not necessarily include assumptions, but they rely on them. They offer a view of the map that can inform action planning and, later, implementation. Program logic models can also define the “dose” (e.g., number, type, and duration of activities), quantify and describe the effects and benefits of the program for a given dose and the ultimate change expected. Dose is an important concept in effectiveness. A dilute dose can have the same impact as none at all. For example, if your intended result is a large voter turnout in an election, a classified ad is not an adequate communication strategy. A comprehensive media plan coupled with free transportation to the voting booths has greater chances of success. So, it is important to design a program with enough of the right activities to secure the outcome you intend.

Figure 3.3 Nonlinear Logic Model



Building a Program Logic Model

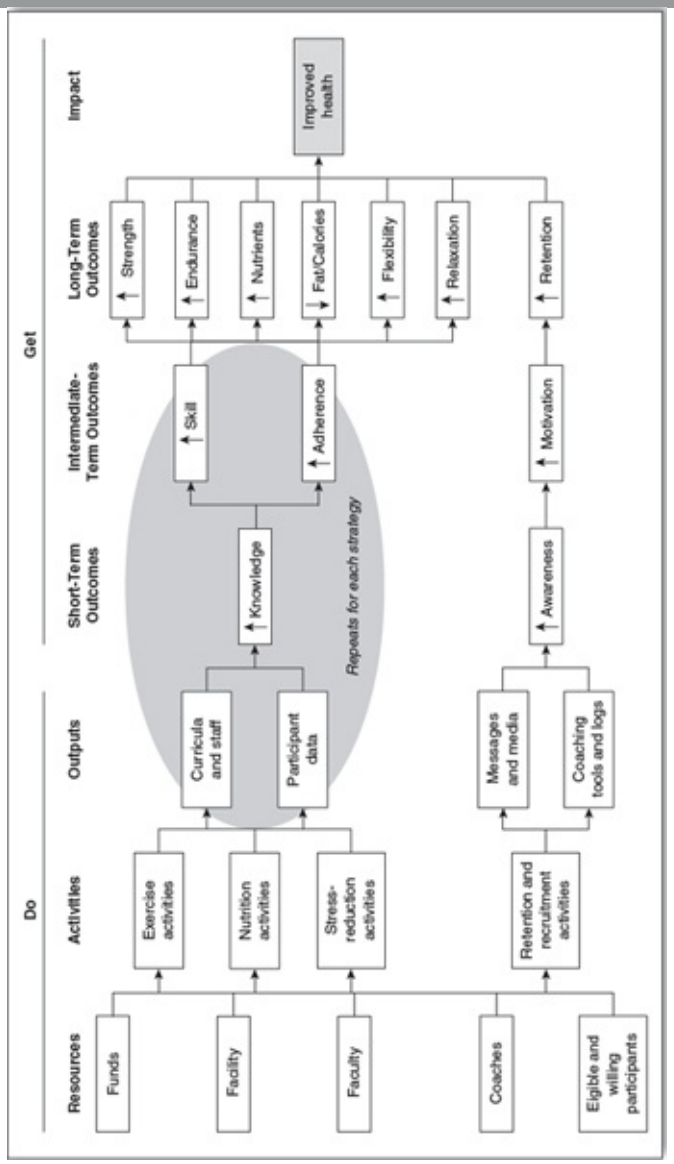
Program Logic Model Example

An example of a simple program logic model for securing improved health is displayed in Figure 3.4. Read from left to right, this program model suggests that if we recruit and retain participants and provide exercise, nutrition, and stress reduction, then we will secure improved health. Note the development of detail connecting strategies to results in this model compared to the theory of change (see Figure 2.3). The program logic model provides detail for the theory of change by explicating the elements from a basic logic model for each strategy strand. In a program model, the details relative to resources, activities, and other elements are named.

Although still an overview and incomplete, this illustration provides a more detailed view of what this health improvement program wants to do, plans to measure, and hopes to achieve. Beginning on the left with resources, this model includes funds, facility, faculty, and coaches, as well as eligible and willing participants, among its requisite inputs. To keep it simple, the strategies contain implied clusters of activities in this illustration. The specific activities that contribute to outputs are not named. Outputs from the intervention strategies and associated activities (exercise, nutrition, stress reduction) could be numerous. For this illustration, we show only the overarching categories of information that could be considered. Each category would be repeated for each of the strands. These would include details about the scope, sequence, and quality of the curriculum; staffing qualifications; and information about participants and their participation. Activities “inside” these strategy strands contribute to changes in knowledge, skill, and adherence. Eventually, they can contribute to increases in strength, endurance, nutrients, flexibility, and relaxation. Concurrently, over time, these same strategies also yield reduced fat/calories. The retention and recruitment strategy strand also generates some outputs and outcomes. Aggregated, activities within this strategy secure and keep participants in the program. Note that this model uses arrows to show relationships. Sometimes they reflect a cluster

(indicating synergies) rather than just one:one relationships.

Figure 3.4 Improved-Health Program Logic Model



As is typical of many programs, several strategies may be shown as contributing collectively to outcomes rather than each strategy making its individual contribution to distinct outcomes in isolation. Collectively, the long-term outcomes generate improved health, which could be measured in a variety of ways (e.g., blood pressure, blood lipid and sugar profiles, weight).

In contrast to the big-picture view that theory of change models offer, program logic models provide a closer, more detailed picture of operations. This view of the program provides adequate detail to then create work plans. Program models can provide a reliable outline for work plans that are used to implement and manage a program or larger change effort. Just like theory of change models, program models are often logical—but here, feasibility, given limited time and resources, is the appropriate standard for assessing their value. A common question about program logic models focuses on their level of detail. Essentially, the level of detail in program logic models should be determined by their intended use and users. Although somewhat situational, program logic models build out strategies to activities. Sometimes they can even get to the fine detail of tasks, although more often that is described in an operations or action plan.

From Strategy to Activities

Some program logic models can be extremely complex, but the steps to create them are generally the same as for more simple efforts (see Figure 3.2). Large-scale programs or multiyear change efforts (sometimes called “initiatives”) often are composed of many strategies aimed at target audiences across many sites over considerable time.

Program logic models usually do not display underlying beliefs or assumptions. They are nevertheless important elements in the conscious exploration of multiple target audiences. Sometimes programs or change efforts are implemented in a cascade with some overlap in time, which requires a particular sequence of strategies and associated activities. When this is the circumstance, it can be helpful to focus on a function, a given strategy, or one partner’s designated work. The task is often simplified by thinking about a single aspect and then connecting it back to the whole with some of the inherent complexity reduced. Ultimately, program execution relies on integrated action—but the work that precedes it may require focused developmental attention on smaller parts.

Using the health improvement program example, Figure 3.5 provides an orientation to how the exercise strategy strand might be reduced to activities. It breaks the strategy into greater detail for the purposes of selection and design.

In Figure 3.5, it becomes evident that exercise as a strategy is made up of several key activities. They include physical exercise (strength and endurance), education, and assessment. Together, all of these activities represent a comprehensive strategy, exercise, that is just one means to improved health. Recall that the whole theory of change for this example also includes stress reduction, nutrition, and retention. It is the combination of strategies reflected in the whole program that is most likely to secure results. Each strand of a comprehensive program logic model needs to illustrate the contribution of each strategy as well as the interdependence.

As you specify the activities content of your strategy, you are naming more precisely what makes up the given strategy. Later, the whole model is tested for feasibility—both practically before implementation and literally when the program is evaluated.

In Figure 3.6, we provide a view with greater detail for *only* the exercise strategy. In this illustration, we show the detail of activities within the exercise strategy. It also suggests the many decisions hidden in program design and planning. In choosing activities, it is critical that the relationship among strategies and activities is intentional. The strategies and the cluster of appropriate activities should also be chosen with reference to a target audience. Remember, logic models use if–then sequences from left to right in the columns and among the features as you read from left to right.

Figure 3.5 One Strategy With Multiple Activities

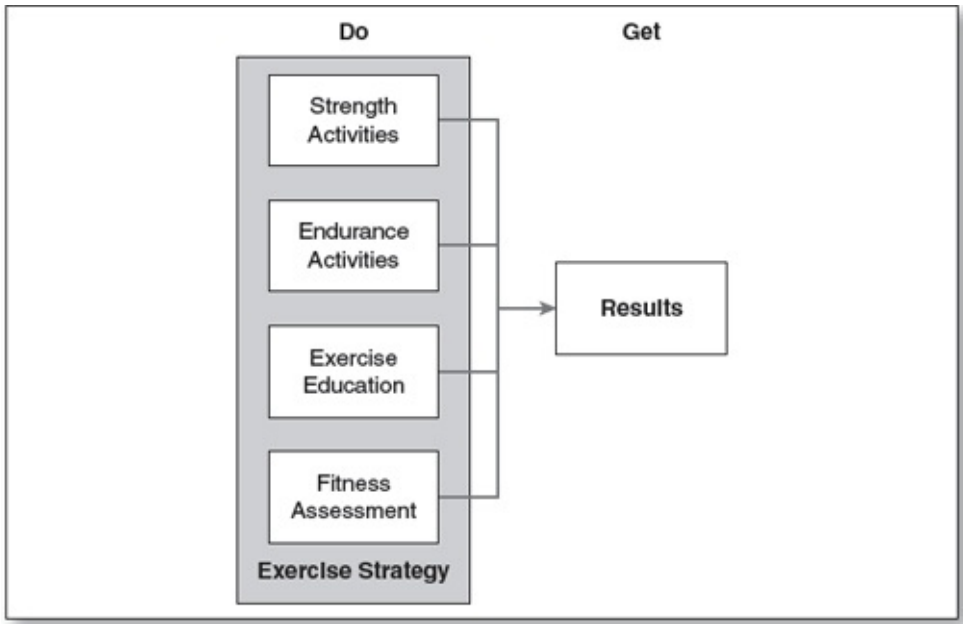
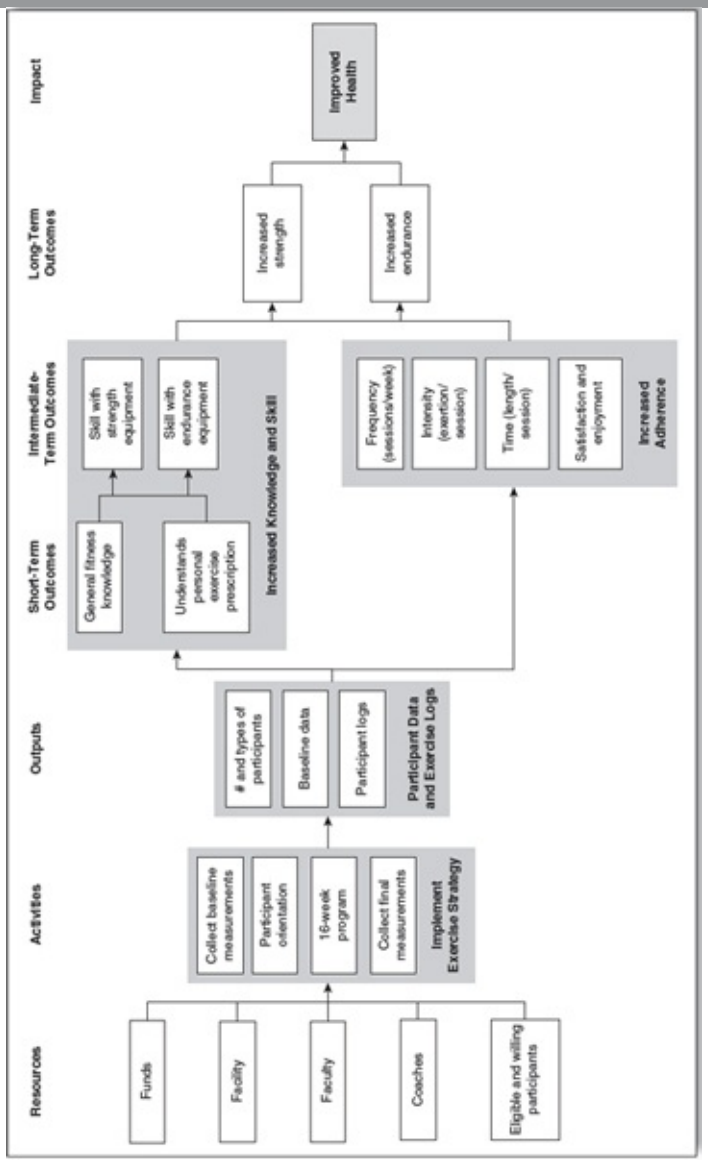


Figure 3.6 Exercise Strategy Detail



Action Steps for a Program Logic Model

The practical construction of a program logic model often begins with one or more information sources (e.g., research, interviews, documents). We recommend that people begin both theory of change and program logic models with the named ends. People are most clear about their intended results (outcomes and impact). Our experience is that you do *know* what you want to accomplish. The results sought reflect both the impact intended and the outcomes over time. Next, name the changes or outcomes that will be part of your progress toward impact. Unpacking this sequence is important because it makes it easier to see the strength of the connection between what you do and what you can get. We suggest tackling the activities required to achieve the outcomes you have specified in your third step. Activities are about *how* intended changes will occur. Fourth, resources/inputs become the essential ingredients of activities. And finally, outputs reflect the information needed to verify that activities named earlier in the process reach the right audiences and are of the quality and quantity needed to produce results. So, the steps to draft a program logic model are ordered in this way:

1. Identify the results that one or more strategies will ultimately generate.
2. Describe the stepwise series of outcomes (or changes) that will show progress toward impact.
3. Name all the activities needed to generate the outcomes (for each strategy).
4. Define the resources/inputs that link directly to and will "supply" the activities.
5. Identify the outputs that reflect the accomplishment of activities.

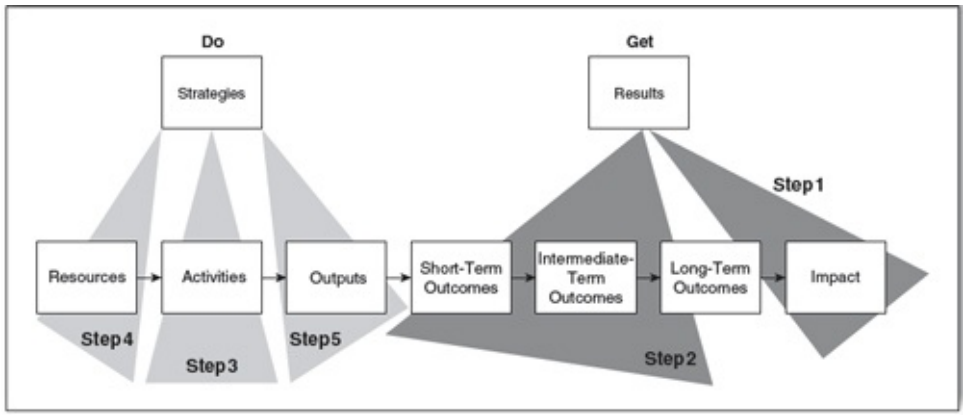
Figure 3.7 illustrates these action steps and their sequence.

Creating Your Program Logic Model

The format of a logic model helps organize information in a useful way. Think of an idea, project, or program you manage now or want to create and its results. For each strategy, brainstorm elements that might be cited in short-term outcomes first but are clearly linked to your intended results. Do the same for resources, activities, and outputs. It is important to make choices about the outcomes that are feasible with your limited resources. This is discussed in greater detail in the next chapter.

With some experience, you will begin to recognize commonly used strategies that reflect knowledge from your field or discipline. For example, marketing/communications, recruitment, retention, professional development or education, advocacy, and policy are strategies often found in program models. Examples of activities under a marketing/communications strategy could include preparing a database of target markets, generating news releases, creating and sending a newsletter, establishing a website, and distributing public service announcements. We suggest you tackle one strategy at a time. Aim to define the same level of detail for each strategy. Selected examples of archetypes, or tested recipes, are described in Chapter 7.

Figure 3.7 Steps in Creating a Program Logic Model



Guiding Group Process

We think the best method for generating a program logic model engages a small group, especially if the members are stakeholders in the idea or program it represents. Stakeholders are situational, but they generally are those who have an interest in or are likely to benefit from the program. Logic modeling often includes funders, program staff, and program participants. Intentionally including stakeholders supports best contributions as well as some subsequent benefits relative to implementation. The facilitation of modeling requires some advance planning and a commitment to both discipline and quality during the process.

If you've already constructed a theory of change, use it to catalyze the creation of the program logic model. If not, defining shared understanding for specified results gets your group process effort started. It is important to note that models may need to be updated to respond to the dynamics of an external environment (context). They also reflect living systems that are not mechanistic but changing. For these two reasons (and others), it is necessary to expect models will be revised. In association with some public specification of time, impact and outcomes can be explored and selected. This can be accomplished a number of ways.

We have had success in using the action steps noted, particularly when each participant contributed to brainstorming the model elements by nominating contributions on sticky notes. This quickly generates a large number of possibilities for each element. Redundancies should be noted and celebrated as commonly held. Then, the group can sort them: those that *must* be kept, that *could* be kept, and those that are *not relevant*. Once the results are named, then it is possible to compose content for the other elements. In this disciplined sequence, each stakeholder contributes to the whole, and each contribution has the benefit of an internal test relative to design.

There are several variations on this approach. From a group, you could invite individuals or pairs to generate models in the sequence shown previously and then reconcile the variations. This approach helps avoid "groupthink" but requires strong process facilitation with content knowledge. A generic model or template for a given program may be available. With some advance planning, it's possible to identify one of these archetypes and introduce it to your group. Then, the content adaptations can focus on improving it so that the content is relevant to your purposes, conditions, and planned results. Chapter 7 includes examples of models that can be used in this way. Sometimes a call for proposals or funding opportunity will articulate the range of acceptable content in a model.

Regardless of the process, strategic decisions about activities and the relationships between elements should be made from among all the content generated. It is important to consider criteria for choices that reflect context, target audience(s), research, practice, literature, and program benchmarking, as well as resource parameters. It can be very helpful to have draft models critically reviewed in a "mark up." This is described in the next chapter as a quality assurance process.

We often use Microsoft Visio to construct our models, but many other applications such as Word and PowerPoint have drawing options. These as well as Inspiration software are all readily available. The Supplemental Readings list at the end of the chapter identifies some examples of other free and commercial software applications. Take care in using technology for model creation, because it can exclude valuable participation.

IN SUMMARY

High-quality program logic models depend on the evidence base found in their parallel but simpler theory of change models. Program logic models display several important elements: resources; activities; outputs; short-, intermediate-, and long-term outcomes; and impact. To create a program logic model, start with the intended results: outcomes and impact. Then, activities (which are consistent with strategies in the theory of change model) are selected. Next, resources and outputs are cited. We believe creating models with deep participation of stakeholders improves their quality and encourages their use.

LEARNING RESOURCES

Reflection

1. What are the implications of a program logic model built without a specific theory of change?
2. Think of a successful business and its product or service. What is the underlying program logic that shows the explanations for profitability?
3. Feasibility relies on several aspects. Can you name some?
4. What are strengths and limitations of a linear or a nonlinear display? Would individuals from different fields (and their relevant cultures) answer similarly or differently? Why?
5. Why is being specific about results important?

Application

Specify the result of a shared program, project, or idea. Draw a theory of change model for the program, project, or idea. Then, attempt a program logic model. Using sticky notes or pieces of paper, brainstorm the outcomes that need to happen to secure the result. Organize them into short, intermediate, and long term. Pick one short-term outcome. Brainstorm what activities are critical to that outcome. Organize the activities relative to a single or multiple strategies. For given strategies and their activities, name the resources needed. From the activities, cite what outputs are possible. Organize these elements as one model.

References and Supplemental Readings

Texts

Frechtling, J. (2007). *Logic modeling methods in program evaluation.* San Francisco: Jossey-Bass.

Green, E. L. (2005). *Reinventing logic models: A stakeholder-driven group approach.* Unpublished doctoral dissertation, University of Cincinnati, OH.

Mayeske, G. W. (1994). *Life cycle program management and evaluation: An heuristic approach.* Washington, DC: United States Department of Agriculture.

Stringer, E. T. (2007). *Action research* (3rd ed.). Thousand Oaks, CA: Sage.

United Way of America. (1996). *Measuring program outcomes: A practical approach.* Alexandria, VA: Author.

Westley, F., Zimmerman, B., & Patton, M. Q. (2007). *Getting to maybe: How the world is changed.* Toronto: Vintage Canada.

Wong-Rieger, D., & David, L. (1996). *A hands-on guide to planning and evaluation.* Ottawa: Canadian Hemophilia Society.

Journal Articles

Cooksy, L. J., Gill, P., & Kelly, P. A. (2001). The program logic model as an integrative framework for a multi-method evaluation. *Evaluation and Program Planning, 24*(2), 119–128.

McLaughlin, J. A. (1999). Logic models: A tool for telling your program's performance story. *Evaluation and Program Planning, 22*(1), 65–72.

Millar, A., Simeone, R. S., & Carnevale, J. T. (2001). Logic models: A systems tool for performance management. *Evaluation and Program Planning, 24*(1), 73–81.

Porteous, N. C., Sheldrick, B. J., & Stewart, P. J. (2002). Introducing program teams to logic models: Facilitating the learning process. *Canadian Journal of Evaluation, 17*(3), 113–141.

Renger, R., & Titcomb, A. (2002). A three-step approach to teaching logic modeling. *American Journal of Evaluation, 23*(4), 493–503.

Rush, B., & Ogborne, A. (1991). Program logic models: Expanding their role and structures for program planning and evaluation. *Canadian Journal of Program Evaluation, 6,* 95–106.

Internet Resources

For comprehensive bibliographies and links to additional resources, see

Logic model resources. (n.d.). Atlanta, GA: The Evaluation Working Group of the Centers for Disease Control and Prevention. Retrieved December 8, 2011, from http://www.cdc.gov/eval/resources/index.htm#logicmodels

Jung, B. C. (1999–2012). *Evaluation resources on the Internet.* Retrieved December 8, 2011, from http://www.bettycjung.net/Evaluation.htm

University of Wisconsin Extension. (n.d.). *Logic model bibliography.* Retrieved December 8, 2011, from http://www.uwex.edu/ces/pdande/evaluation/evallogicbiblio.html

For logic model development toolkits, see

Administration for Children and Families. (2006). *Instructional guide—Creating and using the logic model for performance management.* Retrieved December 7, 2011, from

http://www.acf.hhs.gov/programs/cse/grants/resources/logic_model/

Bureau of Justice Assistance. (n.d.). *Developing and working with logic models*. Washington, DC: Author. http://www.ojp.usdoj.gov/BJA/evaluation/guide/pe4.htm

Centre for Development Innovation (2010). *Logical framework approach*. Wageningen, the Netherlands: Author. Retrieved April 18, 2012 from http://portals.wdi.wur.nl/ppme/index.php?Logical_Framework_Approach

Community toolbox: Developing a theory of change or logic model. (n.d.). Lawrence: University of Kansas. Retrieved December 8 2011, from http://ctb.ku.edu/en/dothework/tools_ tk_4.aspx

Enhancing program performance with logic models. (n.d.). Madison: University of Wisconsin Cooperative Extension Service. Retrieved December 8, 2011, from http://www.uwex.edu/ces/lmcourse/

Graig, E. (n.d.). *Logic models: A tutorial*. Useable Knowledge, LLC. Retrieved December 8, 2011, from http://www.usablellc.net/resources/logic-model-tutorial

Jackson, B. (1997). *Designing projects and project evaluations using the logical framework approach. Geneva:* The World Conservation Union. Retrieved April 18, 2012, from http://cmsdata.iucn.org/downloads/logframepaper3.pdf

Point K: Practical tools for planning, evaluation and action—Logic model builder. (n.d.). Washington, DC: Innovation Network. Retrieved December 8, 2011, from http://www.innonet.org/index.php?section_id=64&content_id=185

For logic model development software, see

Duigan, P. (2011). *Do View 3.0: Visual results and outcome planning*. Retrieved December 8, 2011, from http://doview.com/

Milstein, B., & Chapel, T. (2011). *Tool: Peer discussion of software programs to help you model*. Retrieved December 8, 2011, from http://ctb.ku.edu/en/tablecontents/sub_section_tools_1877.aspx

ImpactMap. (2011). *ImpactMap: Navigate social change*. Retrieved December 8, 2011, from http://www.impactmap.org/

Results Technologies, Inc. (n.d.) *Results online: Outcome tracking software and outcomes-based applications*. Retrieved December 8, 2011, from http://www.resultstechnologies.net/index.php?process=solutions

4

Modeling

Improving Program Logic Models

This chapter focuses on improving models through simple processes that test feasibility. With careful and deliberate review, models for an idea, program, or project can change and mature in their quality. Logic models that are accurate and realistic representations of what you do and will get can increase the likelihood of effectiveness.

LEARNER OBJECTIVES

- Apply simple review and improvement steps to models
- Identify common errors in program logic models
- Recognize the value of multiple versions of models
- Recognize contributors to model quality

The process of modeling supports *better thinking* about a given idea or effort. It can establish routines wherein alternative possibilities are considered and explored. Modeling may be an important antidote to snap judgments. We see modeling as an essential step that has tremendous potential to position a project, program, or initiative for greater effectiveness. It generally involves several versions or attempts at models that result from a critical review of the information displayed.

Modeling and Effectiveness

Once a shared model is created, then those who created the model and others who are external to the program should spend time on its critique and revision. Great plans and programs come from great models. Great models require several rounds of revision. Modeling is the most important content in this book because critical thinking is what refines the content of the model. Modeling is a means to illustrate where you are headed, make better decisions about getting there, and get closer to the right work. We think it is important to test both plausibility and feasibility through modeling. In Chapter 2, we stated that plausibility is the most important criterion for a theory of change model. The process of toggling between combinations of strategies and results to secure an evidence-based model tests and verifies plausibility. We provide techniques that address the aspect of feasibility once plausibility has been established or confirmed. These criteria reflect the widely used *Program Evaluation Standards* (The Joint Committee on Standards for Educational Evaluation, 1994) that include utility, feasibility, propriety, and accuracy. Given the strong relationship between programming (strategy) and evaluation (results), we draw upon what constitutes sound evaluation practice to inform logic model development.

This chapter identifies some of the common context challenges that influence models and mitigate their potential. Some result in flaws embedded in the models and others occur in the modeling process. Our list includes blind spots, myths, “logic,” and scale. We also name an overarching concern: culture. It can influence all the preceding items and more. Next, we identify some quality review techniques for program logic models. Through this sequence, we name the problems often associated with models and attempt to offer some remedies.

Context Challenges

Common Pitfalls: Blind Spots and Myths

Generating high-quality models through modeling is not easy, but both the products and the process do offer significant benefits. Some discomfort among participants during modeling can be an indicator that the process is useful. This discomfort probably reflects the twists, turns, flips, and

angles of new or different thinking. It is important to be aware of blind spots (which we all have). Individuals have blind spots and small groups can have collective ones they protect and promote through interaction among participants. Blind spots are simply unintentional omissions in our thinking or commissions of error that happen because of habit (e.g., snap judgments, confidence, experience enables them). Eventually, these blind spots show up in our models because models represent how we think.

Prevailing myths are another pitfall to guard against. Common examples of myths include "access equals use," "knowledge equals action," "activities equals outcomes," and "send equals communication." These "myths" end up as embedded flaws in models because they are not precisely named and subsequently discarded. Almost every organization, department, or unit perpetuates some myths. We think it's how people defend and rationalize bad habits. These habits are often a way of coping with the organization, a boss, a funder, or another entity. Avoiding the pitfalls of blind spots and myths through disciplined and intentional discovery can contribute to model quality and eventually to program effectiveness.

Logic, Scale, and Specificity

Logic models often display a logical sequence or chain of events, but this is not the same as feasibility. The content and order of activities as well as other elements in a model can make sense, but scale is often an obstacle. Scale is about the relative size of a given effort. In particular, we mean the relationship between the results sought and the quality, volume, frequency, and other characteristics of the intervention or "doing" that is described.

For example, a logic model could name "a just, sustainable community" as its impact. Strategies to secure that intention might include some nonprofit capacity development and leadership development. It is logical to think these strategies might eventually contribute to a just, sustainable community. But these strategies alone are insufficient to achieve the desired impact. There are other essential strategies necessary for this recipe to yield "justice and sustainability." This theory of change model is not plausible.

Subsequently, as activities are selected (in association with the capacity and leadership development strategies), they are far too dilute to have influence. A program, if deployed as described, would be unable to make progress against such an ambitious impact. This is particularly true given the 3 to 5 years allotted to most grant-funded programs to secure results (outcomes and impact). Engaging a few leaders and nonprofit organizations is inadequate to the huge ambition of a just, sustainable community given the enormous number of variables that can intervene. The program logic is not feasible.

If the scale of effort does not match short-term outcomes, then its relative paucity can overwhelm chances of success. Given limitations, it is best to revise the model and indicate something that is appropriate. The first error in plausibility is compounded by a second error of feasibility. This example illustrates why logic, alone, is not an adequate quality test for models. It is important to note that sometimes theory of change models are plausible although the program logic model is not feasible. We believe success is more likely when plausibility and feasibility are evident in both models.

Given limited human and financial resources along with a time frame, it's important to specify your program or change initiative carefully. Making these choices is difficult but very important. We applaud audacious and substantial change agendas. However, success is more likely secured if your work is discrete and seeks near-term outcomes that, if accomplished, will contribute to results. For

example, consider ending childhood obesity. This is an important and big result that reflects a complex systems challenge. Rather than taking on all of this substantial responsibility, perhaps the program effort that reflects your niche is focused on a single aspect such as more physically active middle school children. A reduction in childhood obesity will be more likely if you describe a selected population of children, their gender, their school district, and details of the activities that will constitute your project. These choices focus your results and intended outcomes. They also help inform the best prescription to deliver the dose needed to secure success. We know from experience that specificity is linked to success. Specificity does not preclude scale or ambition; it can complement those issues. We suggest that efforts with limited resources and/or relatively short time horizons be focused on outcomes that are earlier in the sequence on the path to the vision of the future you want to create. These more proximal outcomes can help define a contribution to the desired results. The strength of logic models lies in articulating the contribution to desired impact.

Probability statistics underscore our point: With fewer variables, the likelihood of the optimal combination increases. As the variables increase in number, the likelihood of success declines. We advocate for "smaller bites." It simply means picking which results are likely and moving backward from those results while employing a feasibility lens to determine the activities needed to develop plans, programs, or related efforts.

Politics, Persuasion, and Perception

Sometimes errors in scale are authentic oversights. Other times, the politics of context are the origin. It is quite common for agendas that include marketing or positioning to supersede what's feasible. Models can be very persuasive. Something that is simple and clearly described in a graphic format is compelling. Models often help to persuade others because they clarify meaning and provide a logical organizer consistent with how people think, from actions to consequence. Depending on intended use, beware of models that are vague, general, and lacking in focus. Grandiose hyperbole in a model can indicate it is a marketing tool. Because logic models are socially constructed, it is important to beware that they may represent a shared view—but not necessarily factual truth or reality. The model can display "the" truth or perception of those who created it—or a combination of both. It is an error to assume every model is an evidenced-based prescription. The rigor of models in this matter varies considerably and reflects the context of their purpose and construction.

We indicated early in the book that models are co-created to ensure shared meaning. Exchange with and among participants during the model creation and modeling helps to generate common language. This process also ensures a display that is both intentional and commonly understood. A model that conveys consistent messages among those who created it may not have the same meaning to others because they missed the dialogue, exchange, and iterative processes. An important challenge in this group work is avoiding simple compromise. Compromise may satisfy the intragroup dynamics and politics, but it is not the same as strategy. Models need to reflect strategic thinking and choices. Keeping the focus on strategic choices to secure the intended end results is crucial to model quality and ultimately to program effectiveness.

Besides feasibility, we think program logic models should aim at utility. For this reason alone, models will look different depending on the co-creators and the intended model use. This situational aspect applies to the level of detail in a given model, too. Program logic models can be complete but vary considerably in their content. What one group determines as a useful level of detail may be inadequate for another. Others may choose to model certain aspects of their program with different level of detail. Chapters 6 and 7 display some of this variance in format and use in case profiles and

examples. The social construction of models means they will inevitably reflect assumptions, expectations, use, and other context features.

A Learning Culture and External Review

How models are created influences their format and content. We've already mentioned the composition of the review group. In addition, the culture (norms, values, beliefs) of those gathered to create and/or improve the model is very important. The best culture for improving models is one focused on learning from experience. This implies lots of variation and versions of models that will help secure the one (eventually) used for plans and execution. Mistakes are critical to learning, and it's important that "mistakes" are welcomed. People often need the subjective processes of critical review to identify errors and eventually secure remedies. Nobody draws a "perfect" model on his or her initial attempt. We believe a perfect model is not attainable regardless of the number of attempts. Any model simply represents a snapshot of the best thinking at a given point in time.

Processes to test logic models can retain and engage the original stakeholders who first drafted it. However, models improve most dramatically when introduced to colleagues or external sources that are not directly invested in the models' elements or their implementation. In this way, "disinvested" parties can offer objective critiques, which often uncover blind spots and identify weaknesses, flaws, leaps of faith, ambiguities, "cockamamie," and fiction.

When inviting an external review, it's important to be aware that people may see and read models differently than those who created them. An external review can help provide great insight to both improved model content (e.g., resources, activities, outputs) and relative display (by virtue of placement and arrows that indicate relationship among content). Moving from general to specific, ask those doing an external review a series of questions. For example, initial questions might discover more about how the parts fit or do not fit together, what are other ways the same results could be achieved, and if the resources are adequate. The review might also inquire about the assumptions embedded in the model and ask about the underlying theory of change it has been built on.

Quality Techniques

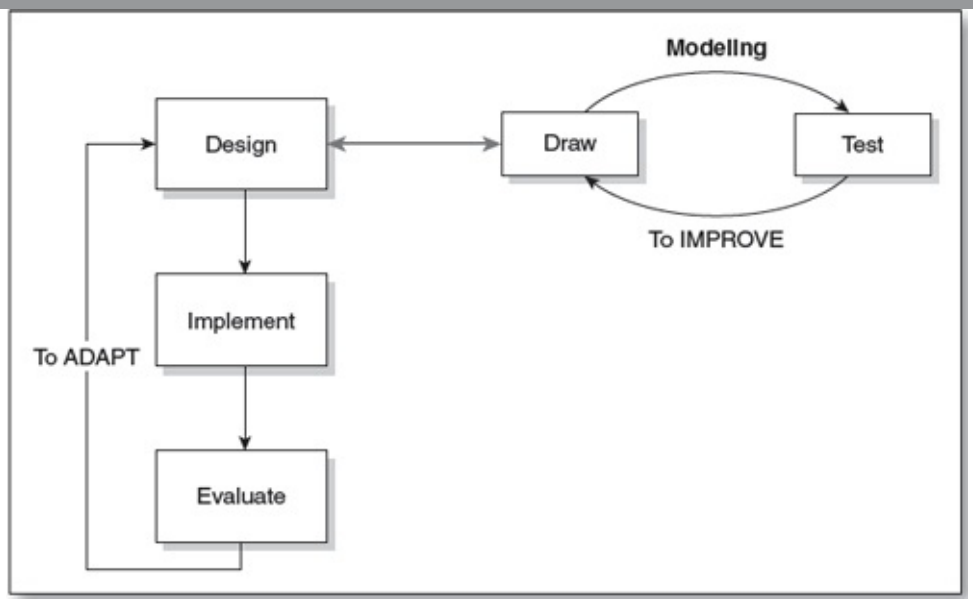
Modeling

Most ideas, projects, or programs can be characterized in their "life" to include four simple stages: design, implementation, evaluation and adaptation. We suggest that modeling is most useful when done in the creation stage and during evaluation, but models can be used at any stage for different purposes. Getting things right at the start can be very important to ultimate results and is a key influence to subsequent stages. Modeling can be thought of as a review process that occurs prior to implementation or execution. It is done to improve thinking and the models that reflect thinking. Time and effort spent in this work can have enormous return on investment through the influence on the program itself. The steps in modeling are draw and test. This construct is displayed in Figure 4.1.

As a program, project, or idea is created, we suggest it gets drawn as a model. The "draw" step is satisfied when all elements of a program model (see Chapter 3) are present. Completion of this step means resources, activities, outputs, outcomes, and impact are named. This provides an opportunity to graphically display the thinking behind how the ideas framed in the theory of change will be

implemented as a program. Many efforts with logic models quit at this point. However, through modeling, you can move quickly to dialogue to process the content and the "tangles." Tangles represent areas of confusion or where some in your group think a choice is wrong, confusing, or poorly specified. Modeling is the process that guides model improvement.

Figure 4.1 Relationship of Modeling to Program Life Cycle



In this chapter, we begin to name how and what can test (or explore) model quality. We believe this testing can help improve models. The subsequent versions of models that result from literal and figurative tests are products of modeling. This process can yield benefits to the specific idea or project as well as the individuals engaged as a work group. It is important to be aware that many external issues influence modeling. We describe some of those issues, but our list is not exhaustive.

Testing Model Quality: SMART and FIT

In a conscious testing effort, one way to explore the quality of a model is to apply SMART principles to it. SMART is a mnemonic used since the early 1980s to set objectives:

Specific: what to do is clear enough to act on and is connected to outcomes.

Measurable: the content can be both quantified and qualified.

Action oriented: the content is selected to provoke change in awareness, knowledge, skill, and/or behavior.

Realistic: the content is both plausible and feasible.

Timed: the content specifies a duration and illustrates the time-dependent sequence of outcomes for progress toward results.

If just a few people apply SMART principles to the outcomes portion of a program logic model, it will probably surface several flaws and, at the very least, some good questions. It may also raise concerns that are unique reflections of the training, experience, perspectives, and style among those

contributing to the review. We suggest that a SMART analysis be applied to both the parts and the whole. In other words, it can be used to examine selected individual strategy strands and activities, as well as the model as a comprehensive effort.

A second way to explore or test the quality of a model is to consider FIT. FIT is an acronym that was first coined by the American College of Sports Medicine as FITT (frequency, intensity, time, and type). Although originally developed to prescribe exercise, we have modified it for use in our practice to quantify program delivery. It stands for

Frequency of occurrence,

Intensity or strength of the given effort,

Targeted at a specified market or audience.

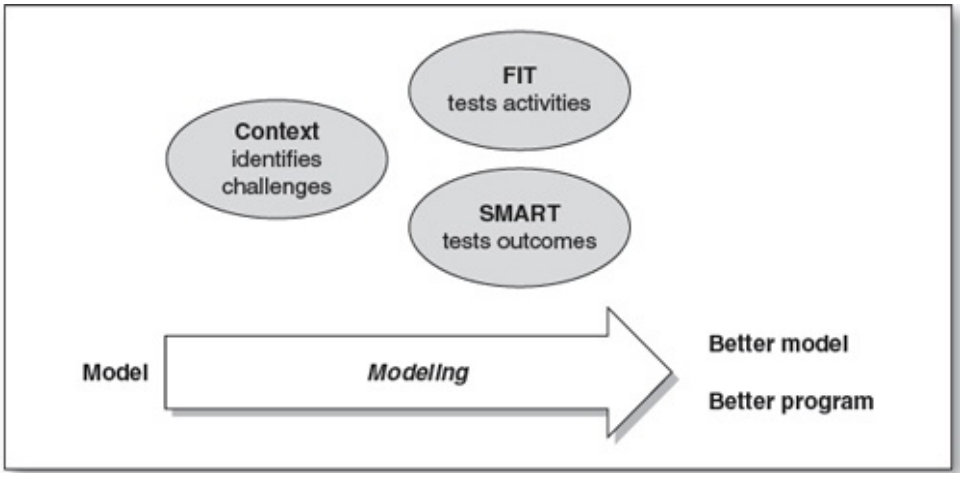
FIT principles offer an easy way to consider the process elements of the program, project, or idea you display in your model. They translate to important questions about the adequacy of dose relative to intended results. The frequency reference implies this question: Does the project (idea or program) repeat, occur with appropriate volume, or happen often enough so that results are likely? The intensity reference implies this question: Does the project (idea or program) have enough depth or concentration that results are likely? The target reference implies this question: Does the project (idea or program) aim at an appropriate and specific audience or market segment?

In effect, FIT can remedy "treatment trickle," one thing known about resolution of problems or generating a change in awareness, knowledge, skill, or behavior: The treatment (or intervention) needs to be both appropriate (the right choice) and adequate (the right dose). The wrong choice won't help get the results you want. The right choice has more chance of securing results, but there needs to be enough of it (volume) focused on appropriate targets to ensure results. "Treatment trickle" means that a problem or challenge is underdosed or an effort that is too broad or diluted to have impact. Feasibility is enhanced when we tackle a desired change with the right strategies as well as appropriate depth of intervention. Treatment trickle is common because people prefer to give everything or everyone "some" rather than make hard choices about who or what gets enough! It is often a reflection of limited resources, vague goals, or organizations with an activities focus (see Figure 4.2).

A "Mark Up"

In Figure 4.3, we revisit the logic model introduced in Chapter 1 for the Community Leadership Academy program. We suggest a technique that's often used in the legislative process as working drafts of language for a regulation or authorization are generated. It is called a "mark up." We adapt the legislative mark up to raise important questions about model quality by applying SMART and FIT principles. Other elements, including context and technique questions, can also be used. This discovery is aimed at changing the model in constructive ways that reflect evidence, strategic choices, and better thinking. Using a disciplined approach to modeling captures an important opportunity for models to mature in quality.

Figure 4.2 Modeling as Quality Review



Frequently, those who participate in developing a model judge how well it addresses the SMART and FIT criteria differently from how it is assessed by an external audience. This is because external reviewers may lack the context and shared meaning that emerge during development. Not all the meaning in a model is explicitly captured, displayed, or explained. The degree to which a model is SMART or FIT is highly contextual and situational. Ratings will depend on who the model is developed for, the model's purpose, and the level of detail the model is intended to communicate. If it is important that your model be self-explanatory under all conditions and/or viewed as credible to a wide variety of external audiences, then consider supplemental narrative. Remember, the model is a summary; it is usually not intended to tell the whole story.

In the Figure 4.3, questions generated from the application of SMART, FIT, and other process principles are placed on the model for discussion and resolution. The provoking dialogue that will likely occur will in turn result in changes to the model content based on new understandings, evidence, and other contributions. Your review of this model may raise different questions about its feasibility.

Figure 4.4 uses the same mark up process to identify questions and concerns about content in the health model. As a constructive effort to critique and refine, quality testing is an important but often overlooked step.

In both of these mark ups, FIT questions aim primarily at the quality of process or intervention dose. SMART questions are focused on the feasibility of outcomes. It is easy to see that as the model increases in complexity, the challenges to success increase, too. In a comprehensive effort, more pieces or parts must align and work together to secure the intended impact. The real time and context between activities and outcomes means many external issues also have the potential to influence the outcomes.

Figure 4.3 Community Leadership Academy Program Logic Model Mark Up

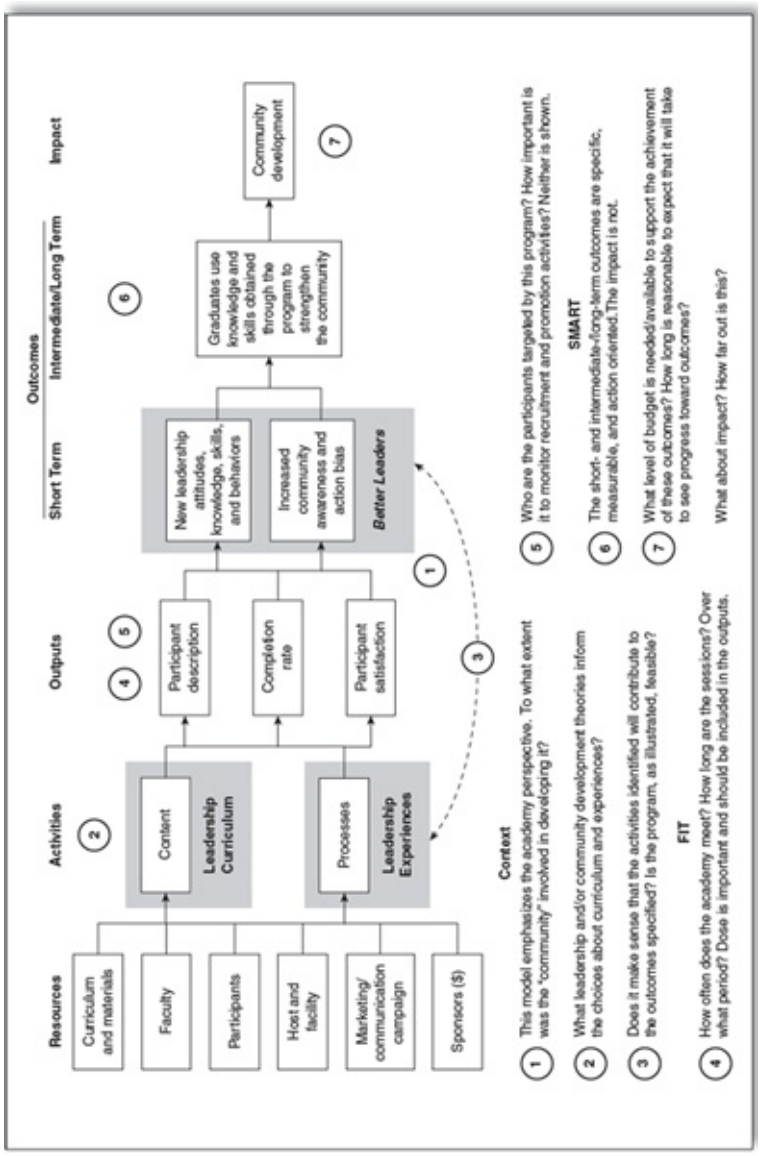
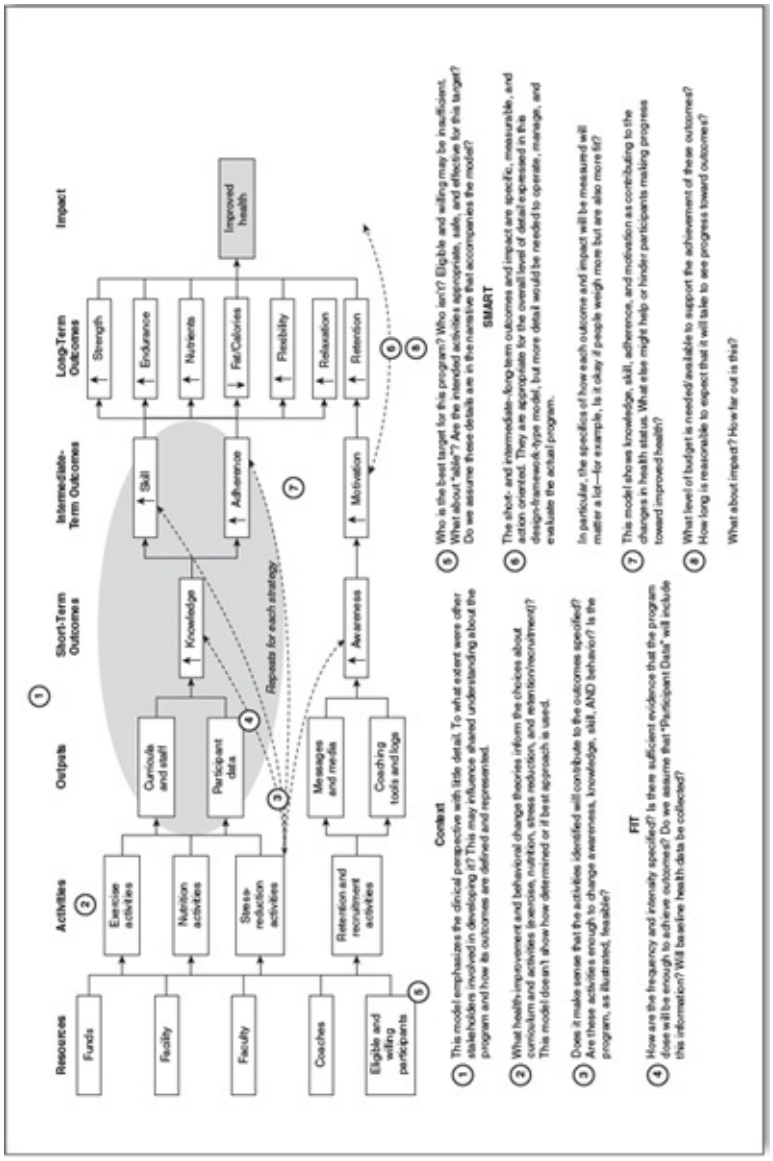


Figure 4.4 Health-Improvement Program Logic Model Mark Up



Typically, groups vary on how much emphasis they place on each of the characteristics of quality models described here. As with model interpretation and review, context and composition of the group frequently determine how the difficult distinction is made.

This also points to crucial issues in execution. When a model (representing an idea, project, or program) is evidence based, strategic, and well designed, implementation can still fail its potential. Although logic models are often used to inform evaluation, modeling at this stage is rarely done (see Chapter 5). Although outside the scope of this text, great execution is absolutely essential to results.

Quality Questions

The models you (and your colleagues) build reflect your collective thinking. Nobody would argue with this assumption: Best thinking is a critical input to any work and its likely success. As you consider the design or plans for your project (program or idea), the following questions reflect quality considerations. They include application of the SMART and FIT principles. You might construct other questions based on your own experience or particular subject matter expertise. Think about ways to conduct discovery around blind spots, myths, and other culture concerns. Regardless, it is important that deliberate efforts are invested in the maturation of a model. Modeling provides an opportunity to test, improve, and revise models. This process helps develop the thinking and the program that the model represents.

Quality Questions for Program Logic Models

1. Are the results specified with shared meaning among all stakeholders?
2. What research, practice, and theory are grounding for our choices in activities? Is there a relationship between the program logic model and a theory of change?
3. Did we challenge the recipe of activities and outcomes to ensure feasibility given the challenges we seek to resolve?
4. What activities have worked under similar conditions? What current conditions might influence selection of activities? Is there evidence that these activities are best?
5. Is the model FIT?
6. Are target audiences clearly defined?
7. Does the interaction among activities contribute to intended outcomes?
8. Do the outcomes feasibly contribute to intended results?
9. Is the model SMART?
10. Do we have adequate resources and time to accomplish intended results?

A Quality Model

Figure 4.5 displays characteristics for model quality. It assembles key narrative from this chapter into a graphic. The figure describes two important standards for model quality: plausibility and feasibility. The quality characteristics for theory of change models are noted (as in Chapter 2), where the focus is on the relationship between strategies and results. The quality characteristics for a program logic model are captured by FIT and SMART principles. We suggest the application of this in a mark up is one way to work with colleagues in modeling. We think, taken together, theory of change models that are plausible and program logic models that are feasible can contribute to effectiveness.

"Better" Decisions

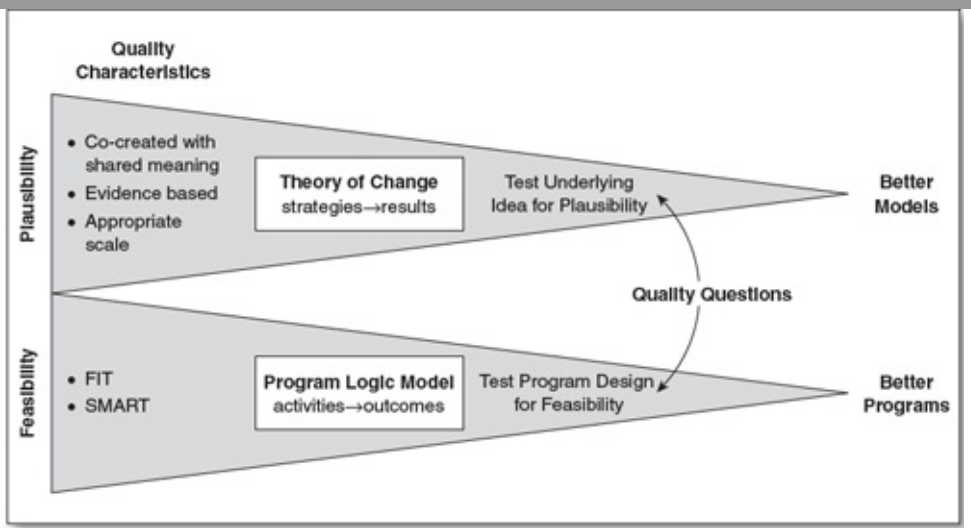
Earlier in the text, we asked three questions about effectiveness:

- Are you doing the right work?
- Can you make better decisions?
- Are you getting superior results?

The second, about making "better decisions," is highly central to modeling. In effect, we apply this query to strategy and activity selection relative to results. How you choose to focus time, energy, talents, and resources in relation to your specified success is related directly to effectiveness. There are many ways to secure a named intention. Discarding strategies/activities that are peripheral, modest contributors, or less than optimal focuses limited resources. Further, specificity about strategies and activities contributes to the results you and your colleagues intend to secure. Ambiguity should be avoided. Eventually, "right work" is also about the strategies and activities in the program logic model. Giving conscious attention to the criteria employed in selecting strategies for the theory

of change model and then the specific activities in the program logic model can make a big difference in securing results. “Right work” gets clarified and better decisions considered through the process of modeling. Models and their versions can develop discipline as well as standard practices that contribute to new understandings about what will generate progress on results.

Figure 4.5 Factors and Features of Quality Models



IN SUMMARY

Although frequently overlooked, modeling is a helpful technique to improve your chances of success, because great design and plans come from great models. We suggest iterative versions of models are co-created through a disciplined process that tests and retests quality. Models can be greatly influenced by unintentional omissions (blind spots), myths, politics, persuasions, and perceptions. Logic, scale, and specificity all have a bearing on models, too. A simple way to explore model quality is the application of SMART and FIT principles. We suggest a mark up as a good way to critically review your program logic model.

LEARNING RESOURCES

Reflection

1. Given how subjective program logic models are, what are the implications for the outside “reader” of a model? What does a model that will be read and perhaps used by those other than those who constructed it have to communicate?
2. What role might politics, persuasion, or perception play in how a model might be created, tested, and improved? How do these issues influence model quality and use?
3. What prevailing myths might influence choices in your workplace or family? How do blind spots influence choices?

4. How might the improvement process for a simple, single-site project model be different from that for a more complex multisite, multilevel initiative? What concerns should the model development team be sure to address, and what aspects of the model will be most important to communicate?
5. Can a complex, comprehensive program be effectively modeled with a single diagram? Why or why not? How would you approach a task like this?

Exercises

1. Imagine what a strand focused on marketing might look like to promote an innovative new hearing aid. Make an assignment for individuals to illustrate this strand. Give them all the same amount of specified financial resources over 12 months and tell them the desired outcome is maximum sales volume. Then, ask them to name their target market and key activities in the marketing strategy. Compare and contrast versions each participant creates. What assumptions, knowledge, or evidence accounts for the differences in how the marketing strands are constructed? What criteria are useful for reconciling these different illustrations?
2. Consider the questions raised in Figure 4.3 about the Community Leadership Academy program logic model. How would you answer them? What would the model look like once those questions had your answers? Draw it and discuss the implications of your response to the mark up.

   Consider the questions raised in Figure 4.4 about the Health Improvement Program. How would you answer them? What would the model look like once those questions had your answers? Draw it and discuss the implications of your response to the mark up.
3. Draw a logic model for learning a foreign language. Ask a colleague to conduct a mark up using SMART and FIT on the models. What might change? How? Why?

References and Supplemental Readings

Texts

The Joint Committee on Standards for Educational Evaluation. (1994). *The program evaluation standards: How to assess evaluations of educational programs* (2nd ed.). Thousand Oaks, CA: Sage.

Van Hecke, M. L. (2007). *Blind spots: Why smart people do dumb things*. Amherst, NY: Prometheus.

Journal Articles

Alter, C., & Egan, M. (1997). Logic modeling: A tool for teaching critical thinking in social work practice. *Journal of Social Work Education, 33*(1), 85–102.

Doran, G. T. (1981). There's a S.M.A.R.T. way to write management's goals and objectives. *Management Review, 70*(11), 35–36.

Dwyer, J. (1996). Applying program logic model in program planning and evaluation. *Public Health and Epidemiology Report Ontario, 7*(2), 38–46.

Israel, G. D. (2010). *Using logic models for program development (AEC 360).* Gainesville, FL: University of South Florida, IFAS Extension. Retrieved December 7, 2011, from http://edis.ifas.ufl.edu/wc041

Julian, D. (1997). The utilization of the logic model as a system level planning and evaluation device. *Evaluation and Program Planning, 20*(3), 251–257.

Renger, R. (2006). Consequences to federal programs when the logic-modeling process is not followed with fidelity. *American Journal of Evaluation, 12*(27), 452–463.

Rush, B., & Ogbourne, A. (1991). Program logic models: Expanding their role and structure for program planning and evaluation. *Canadian Journal of Program Evaluation, 6*, 95–106.

Internet Resources

Burke, M. (n.d.). *Tips for developing logic models.* Retrieved December 7, 2011, from http://www.rti.org/pubs/apha07_burke_poster.pdf

In addition to practicing the review steps on your own models, there are many other examples of logic models to work from available on the Internet. For several different approaches, see the following:

Duigan, P. (n.d.) *Outcomes model listing.* Retrieved December 8, 2011, from http://www.outcomesmodels.org/models.html

Tucson: University of Arizona Cooperative Extension. (2009). *Logic models.* Retrieved December 7, 2011, from http://extension.arizona.edu/evaluation/content/logic-model-examples

Capable communities: Examples. (2011). East Lansing: Michigan State University. Retrieved December 7, 2011, from http://outreach.msu.edu/capablecommunities/examples.asp

SEDL. (2009). *Research utilization support and help: Logic model examples.* Retrieved December 8, 2011, from http://www.researchutilization.org/logicmodel/examples.html

PART II

Applications

5

Logic Models for Evaluation

This chapter focuses on using logic models as the architecture for deeper engagement of stakeholders in discussion about evaluation design. Logic models inform the development of several elements of evaluation design. Logic models are a powerful device even if they have not been used for program planning. This chapter covers selected concepts useful to an evaluation consumer.

LEARNER OBJECTIVES

- Describe the contributions logic models can make to evaluation design
- Use a logic model to focus evaluation on high-value information needs
- Use a logic model to provoke dialogue on both process and results indicators
- Identify how logic models can be used to increase effectiveness

Getting More Out of Evaluation

Connecting Management With Measurement

So far, logic models in Chapters 2 through 4 have been shown as significant tools to assist in improving the thinking behind the design and/or planning of your efforts. At this point, remember that the model is just an illustration. A model at the program planning stage functions much like the map an explorer would use to guide a journey—to chart new direction. It highlights the portions of program operations as well as the pathways and milestones you believe are most critical to achieving desired results. The assumptions that were used to construct the model during program planning need to be put to the test. As your program is implemented, there are ample opportunities to observe and collect information about what works and what does not. Evaluation, whether informal and anecdotal or formal and highly technical, supplies that vital information.

Evaluation is not just performed by evaluators. All day long, people determine (and use) information about processes and connect it to results. They do this to assess progress and for the purpose of improvement. We all have at least once in our lives looked in the mirror, gasped, and made some adjustment, either right then or at some future point. In this situation, the result could be how we or others perceive our image. The process would be any of those actions we take to achieve the image we desire (haircut, wardrobe, grooming, etc.). Any change in our actual appearance will be reflected in the mirror. Evaluation in isolation will not improve effectiveness—it is just an activity.

Funders, program staff, and participants are typically referred to in evaluation circles as stakeholders. We use this term in earlier chapters when explaining their role in logic model development during program planning. During program design, funders and program staff serve as the program architects and content experts, with participants as the experts in community context and benefit. However, when the time comes to use logic models for evaluation, the stakeholder role changes somewhat. During evaluation, stakeholders also play a key role as information users although they are not often experts at evaluation. This is why we refer to them as evaluation consumers in this chapter. Evaluation must be understood, appreciated, and used by evaluation consumers if it is to have any influence on improvement. It is only when evaluation consumers take a more active role in connecting what they do with what they get that they can benefit from their evaluation investment.

The logic model serves as the focal point for discussion about evaluation because it displays when, where, and how to look for the information most needed to manage the program and determine its effectiveness. Although this chapter focuses on using logic models to inform evaluation design, they can be used in a number of other ways to benefit programs as well. Because logic models show the key elements of your program, they can also be employed for focusing your internal communication or external dissemination messages, audiences, and products. In addition, logic

models point out the categories of data sources, expertise, and documents essential to include when developing knowledge management systems to support program operations.

When the model of your program is used to guide evaluation, it then becomes more of a navigational aid (informs direction) and a dashboard (informs data collection and gauges progress). The crucial step in improving effectiveness, however, is to ensure the evaluation provides appropriate and timely feedback to management. It follows then that management is sufficiently evaluation literate and takes the time to reflect on the meaning and significance of evaluation data. For evaluation to be truly useful, its findings must be relevant, understood, and applied by program staff. Logic modeling enables evaluators, program staff, and funders to develop shared understanding about what the evaluation will cover, its purposes, and how the information collected will be used. The way to get more out of evaluation is to plan for its use right from the beginning.

Evaluation typically includes the collection, analysis, interpretation, and reporting of data needed to inform the decisions of those who fund, provide, or administer programs. Anytime assessment occurs, there is opportunity to apply the information gathered to improve the effectiveness of programs, policies, personnel, products, and organizations. We believe that one key to effectiveness is to couple program design and implementation *with* evaluation. Logic models help accomplish this because they provide a set of clear, measurable, and realistic program processes and outcomes. If these are overly optimistic or are not measurable, the program may neither be able to operate as planned *nor* demonstrate that it has been effective.

A decade ago, logic models were used almost exclusively to plan and execute evaluations. Over time, evaluators and program staff have learned that there are benefits to building the evaluative thinking that the logic model process brings right from the start. A logic model for evaluation is like the “bookend” or mirror image of one for planning and implementation. They both display the same content. By using a logic model to inform evaluation design, program staff, funders, and evaluators can have a clearer picture of what their evaluation will measure and produce.

This chapter does not prepare you to conduct an evaluation. Instead, it points out the key areas where a logic model can support program staff, funders, and evaluators during evaluation design. They do this by focusing decisions on what the evaluation will include and by planning for the use of evaluation information to support learning and program improvement. This chapter shows how the architecture of logic models can be used as the platform to guide discussions about why, where, when, and for whom evaluation activities should occur to generate maximum utility. Through evaluative thinking and enhanced awareness about evaluation, models can support a more active role for program staff and funders in shaping evaluation to better meet their learning and accountability needs.

Evaluation for Effectiveness

In simple terms, evaluation often involves a critical review of the strategies and activities (the “doing”) selected and their implementation and results (the “getting”). There are two basic types of evaluation: summative and formative evaluation. The following metaphor (paraphrased from Michael Scriven) is widely used to illustrate the difference between these two types of evaluation. When the cook tastes the soup, that is formative evaluation, but when the guests taste the soup, that is summative evaluation. Also, summative evaluation is sometimes used to determine causation (that the program actually caused the effect) in preparation for replication or scaling up an intervention.

A summative evaluation is typically done for the purpose of accountability and determines whether intended results were achieved. It generally responds to the question: What difference did we

make? So this type tends to emphasize the "getting" or outcomes and impact side of the model. Summative evaluation tends to be retrospective in that it usually occurs at the conclusion of a program. For example, the summative evaluation of an educational initiative might focus solely on student achievement. Or a summative policy evaluation might look only for changes in specific legislation.

A formative evaluation is most often used for the purposes of learning about what works and/or program improvement. It generally responds to the question: How can we be more effective? Formative evaluation focuses prospectively on improvement by looking at both the "doing" and the "getting" sides of the model. It looks at the relationship or "logical" connection between processes and outcomes throughout the program duration. Building on the educational initiative example above, a formative evaluation might also examine and address the factors that influence student achievement, such as quality of instruction, curriculum, and/or assessment. Similarly, a formative policy evaluation might examine the quality of the policymaker education efforts and look for changes in attitudes or knowledge as essential first steps toward legislative action. Evaluation findings might show program leadership and staff that their message is not persuasive enough, that their contact is too brief, or that too few policymakers are reached and might suggest that they change their approach accordingly.

These two types are complementary, but the lines of distinction between the two are often highly contextual and blurred. The information both approaches can produce is needed to improve results. Regrettably, most evaluations are conducted for compliance with requirements set by funding sources, including governments and grantmakers. Many times, such evaluations are not used by program managers, funders, or other stakeholders. Typically, these evaluations are focused on verification that dollars were spent in approved categories and that target audiences received services in the numbers anticipated; very little focus is on the difference made. So these evaluations often capture and codify information already known by the program staff. Sometimes they are highly technical and academic and explore aspects that have little relevance to the day-to-day operation of a specific program.

Improved effectiveness requires that evaluation consumers have the information they need. Achieving that requires some degree of engagement by evaluation consumers in the evaluation design process. Logic models facilitate communication between evaluation experts and the consumers they serve. They communicate the essence of a program as envisioned to inform evaluation. Conversely, they also communicate the essence of the evaluation to inform program.

Evaluation Design Basics

Where Consumers Add Value

Typically, evaluators rely on an evaluation plan to communicate the details of what they propose to do. Evaluation consumers frequently use the evaluation plan as the starting point for evaluation contracting. An evaluation plan should describe what information the evaluation will secure, what purpose it will serve, and for whom. In addition, it often includes methods for data collection, a schedule for tasks (or a timeline), personnel qualifications, reporting, and cost. There is often quite a bit of negotiation from the original request for proposals, initial proposal, and final evaluation plan. It is during this back and forth between the evaluation experts and consumers that evaluation-literate consumers can best take action to focus their evaluation investment on effectiveness. Readers interested in detailed information on evaluation are referred to the Supplemental Readings list at the

end of this chapter.

Figure 5.1 shows the basic elements of an evaluation design. Reading from left to right, an evaluation design first and foremost needs to specify the purpose of the evaluation. Purpose includes the intended use and who will use it. As you recall, formative evaluation serves program improvement and summative serves the purpose of accountability. However, both types of evaluation have the same design elements. After that, the design should describe the information needed to address the questions inferred by the expressed purpose. Next, the indicators that further specify the quality and quantity of information are developed. From the indicators, the range of methods and types of appropriate analyses can be determined. Indicators also inform the schedule and type of reporting because they show when data might be available and how best to communicate results.

This chapter is limited to information needs, questions, and indicators because this is where evaluation consumers are most able to add value. These three elements define the core content the evaluation needs to address if the evaluation is to be used as intended. Evaluation consumers are the program experts and can inform evaluation design in ways that keep the purpose the evaluation must serve in the forefront. With this focus, those charged with conducting the evaluation (whether external consultants or internal staff) are better able to select appropriate methods to capture pertinent information and work with consumers to agree on reporting style and timing. Those conducting the evaluation are counted on to provide methodological and communication expertise.

Evaluation has some of the same limitations that program design, planning, and implementation face: time, talent, and money. These limits mean that there are important choices to make relative to information needs and processes to secure information. Questions like the following become the foundation for evaluation design:

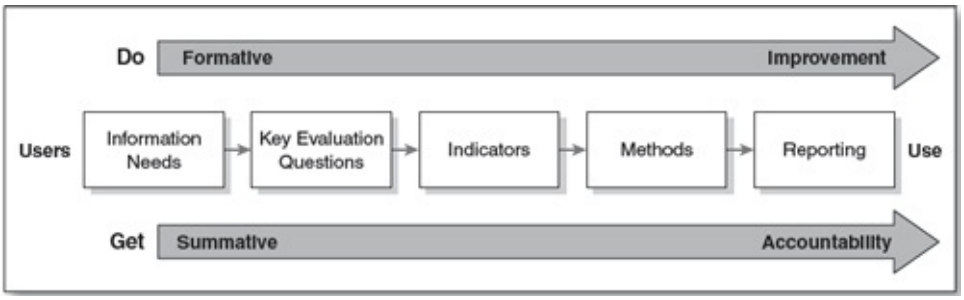
- What are the priority areas for inquiry?
- What are the key questions about those areas that we need to answer?
- What is “fair” to expect in outcomes given resources and effort in the program?
- What will be used as indicators of sufficient effort (process) and progress (outcomes)?

The evaluation design process pursues answers to these (and other) questions. So how does the use of logic models support evaluation consumers in advocating for their interests during design?

Where Logic Models Add Value

Because a logic model (whether a theory of change or a program model) illustrates the relationship between planned or actual work and results, it supports evaluation through commonly understood visual architecture. This architecture assists in the formulation of key questions and indicators about the program and its effects over time. It does this in ways that encourage evaluation use that targets improved effectiveness. Subsequently, appropriate data collection methods and other aspects of the full evaluation plan can be identified. All too often, groups are eager to rush into measurement without first determining what should be measured and why.

Figure 5.1 Evaluation Design Elements



Because only limited resources are usually available for the evaluation, it is important to identify who the evaluation users are and determine what they *need* to know. Generally, there is lots of discussion about what they *want* to know or *could* know. Evaluations are rarely allocated resources that provide for a thorough examination of all program elements and their relationships as expressed in a model. Logic models and modeling (which display versions or aspects in greater detail) can help explore options and point to the most strategic choices for evaluation investment. Sometimes the evolution of an evaluation design is a long dance.

At the outset, clear determinations of users and their uses are important considerations. Knowing your audiences and their information needs will support good choices and focus your evaluation so that it has optimal utility. In practice, the functional objective is to specify what information is essential *and* secure an evaluation that discovers and delivers in response to that need. The logic model and modeling process provide the architecture against which evaluation experts and consumers can decide. The power of evaluation is harnessed when the findings and analysis generated are *applied* to the work examined. With logic models as the framework for design decisions, evaluation can provide critical feedback loops about the progress of a strategy, program, initiative, or organization toward its desired results.

Evaluation consumer participation in the logic model development process (whether during program planning, evaluation, or both) helps to ensure that the evaluation services they procure address their needs. The tools and processes of logic modeling provide the opportunity to build common language and understanding with their evaluation partners about what will be included in the evaluation and how the information will be used. Stakeholders, in the role of evaluation consumers, need to know enough about the evaluation design process to have input on the questions to be addressed and the evidence that will be used to determine success. Given that the logic model is the graphic representation of the program's key processes and outcomes, consumers can then easily identify and advocate for those aspects of the model most important from their perspective to manage and measure.

While the reasons and expectations for evaluation can vary, we are predisposed to utility. This requires a clear determination of who needs to know what about the program and to what end? Without logic models to portray a shared understanding of the evaluation, it may serve some or none of your audiences. For evaluation to make its full contribution to performance management and effectiveness, it is important to design the evaluation as a resource that can support the learning of those for whom its use is intended.

A Design Example

Two Kinds of Learning

We use theory of change *and* program logic models to plan programs and their evaluations because together they better stimulate conversations and, subsequently, learning about those aspects of a program most essential to success. One important concept frequently overlooked is that in order to use evaluation to improve effectiveness, you need to engage in learning.

Organizational learning and development experts often speak of two types of learning that are needed to improve program effectiveness. The first type of learning examines the current program and uses evaluation information to improve the program as it was originally envisioned. This type of learning, technically referred to as "single loop," does not question the assumptions and evidence that underlie the program design. The original thinking is a given and is not examined. This type of learning is focused on simple changes in the quality and quantity of activities directed toward producing increasingly better versions of what you originally intended. In this case, evaluation is used to test and improve the "logic" behind implementation. Effectiveness is improved incrementally.

The second type of learning examines whether the original program design is sound. This type of "double loop" learning can transform an effort into something dramatically different from what was initially intended. Here, when activities do not seem to produce intended results, the strategies themselves or the likely outcomes may be questioned and altered. Evaluation that serves this type of learning is used to test the theory of change (connection between strategies and results) and improve the logic behind the design and/or model that drives implementation. For readers interested in more information about single and double loop learning, see the Supplemental Readings list provided at the end of this chapter.

In this section, we use the general Community Leadership Academy (CLA) program logic model example introduced earlier to show how models can be used to develop and communicate evaluation design that serve both types of learning.

Key Evaluation Questions

In Chapter 1, using the example of the CLA program, we introduced model types: theory of change, program, and evaluation. Before we review those models, it is important to understand that key evaluation questions develop from simple questions. These questions are "What did we do?" and "What did we get?" They are asked at the level of the theory of change for the program as shown in Figure 5.2. Evaluation helps us examine the links in the logic underneath the planned work and its connection to desired results. By this link, we mean "testing" whether the theory of change as originally modeled actually described what happened. Does the original thinking that asserted "If we do X, Y, and Z, we will get the results we want" hold true? Here, the model serves double loop learning by helping focus attention on the bigger picture.

Before any effort is invested in improving the program as it is currently designed, the question of whether it was the "right" thing to do should be determined. By this, we mean two things. First, relative to goal attainment, we would ask, "Is it aligned with broader organizational goals?" Second, relative to the activities selected, "Were they among the best choices we could have made to achieve our desired ends?" This is particularly important in those instances in which logic modeling was not used during program design.

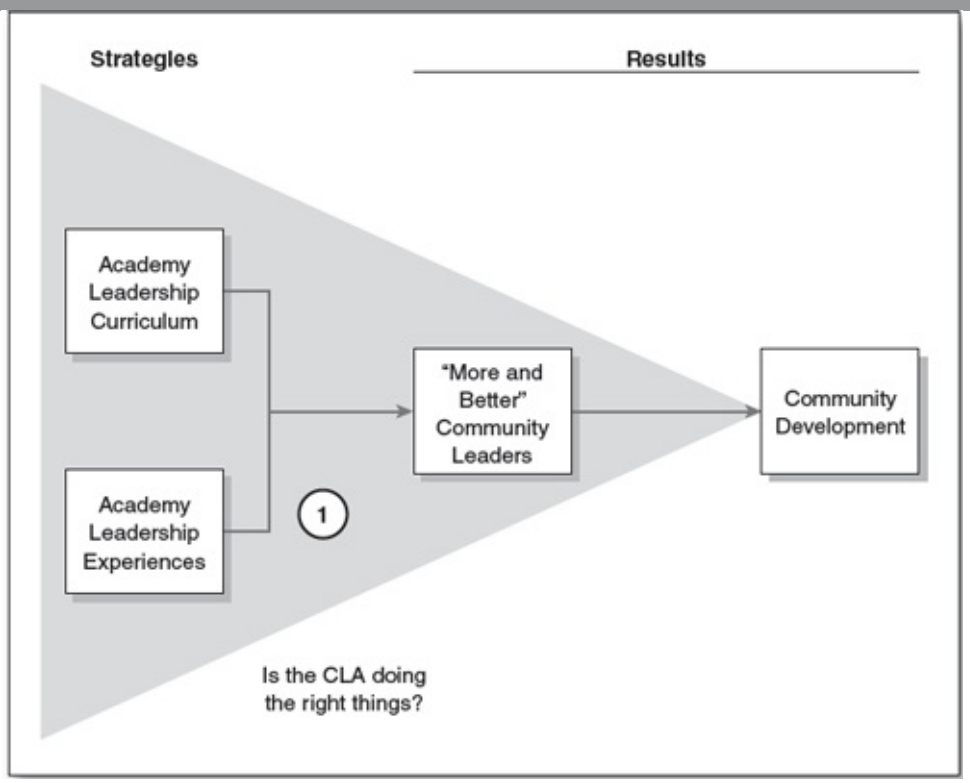
The CLA theory of change model (Figure 5.2) helps us explore potential areas for focused discovery and learning. The basic "do" and "get" questions help to shape the information the evaluation can deliver. Recall, this program had two strategies: curriculum and experiences.

In the CLA example, key evaluation questions were co-constructed with the client, who sought external evaluation services. This client, a foundation, had sponsored the program for almost 20

years. It and other stakeholders wanted to know what difference this effort had made and ways the program could be improved. The program design is simple. It assumes participants (as an input) and provides greater detail about the two strategies named in the theory of change: leadership curricula and experiences. An obvious first question (see Figure 5.2) is whether leadership curriculum and experiences are the right strategies in a leadership program aimed at community development. It is important to focus evaluation on testing this basic assumption (or "link") about the "right work" because it is the foundation for the program design. Figure 5.2 shows this first question on the theory of change model because it is "testing" at the strategy level.

It is also important to note that the CLA, as well as other projects, initiatives, and organizations, operates in a larger system. For the CLA, it is a specific community. Organizations operate in other layers of reality besides geography. This might be a sector or a country. These contexts certainly have issues, both barriers and facilitators that can exert tremendous influence on impact. In the CLA example, it may be the abundance or lack of participants. Or perhaps it is a culture reluctant to invite program graduates into community work. Organizations are subject to many other kinds of influences in their external environment, like labor practices, taxes, or consumer whims. It is worth mentioning here because sometimes evaluations aim at discovery relative to barriers and facilitators, and these are not always specifically stated in a theory of change model. When it is possible to include the examination of these influences in evaluation, they can support improvement and/or help explain results.

Figure 5.2 Community Leadership Academy (CLA) Theory of Change Evaluation Question



In Figure 5.3, the program logic model is used to determine the other key questions central to evaluation design. In this display, we indicate those key questions that test the implementation logic. This information can be used to determine areas for improvement and to increase the likelihood or magnitude of effect. The key questions are placed near links of logic (areas of the model) that specify where deeper discovery about implementation might yield relevant information. It is important to note that the questions about outcome and impact need to be addressed for both types of learning. Both theory of change and program logic models show the same information, just in different detail

as well as for different purposes. Ultimately, the evaluation design for the CLA addressed these five key questions:

1. Is the Academy doing the right things?

Question 1 is about the "recipe" for the program. It seeks information about program content (strategies as well as the resources, activities, and outputs). It attends to discovery about these, their interaction, and contribution to results. This exact query is placed on the theory of change model (see Figure 5.2). The question is hidden in the program logic model, where the program view has considerably more detail.

2. Is the Academy doing things right?

Question 2 is about the implementation quality or execution of the selected program content.

3. What difference has the Academy made among participants?

Question 3 focuses on how individuals may have changed because of their Academy experience.

4. What difference has the Academy made across the community?

Question 4 examines the changes that could be attributed to the community because of the program.

5. What are the ways that community needs can and should be addressed by the CLA?

Question 5 seeks other information that can help inform a better or an improved program. This might be by improving strategy and/or implementation.

These questions are *very typical* but highly general program evaluation questions. In some form, they may even have universal application because they represent common areas of interest about any program, project, or initiative. These questions can also be the basis for more precise inquiry or subquestions in each area. Subsequently, data are collected to respond to questions.

Theory of change and program models for this effort share the same intended impact: "community development." Before evaluation and during planning, it could be useful to ensure shared understanding of what "community development" means and what it would look like if the program were successful. Does "community development" mean full employment, a vibrant arts culture, effective schools, all of these, or something else? Similarly, on the CLA theory of change model, note that the outcome of "more and better leaders" precedes this desired impact. Assuming that "more and better" means an increased number of designated leaders with skills, then we could infer skill changes among Academy graduates. Arriving at shared understanding of what the terms used in the models actually mean helps determine how they can be measured. Questions like these help evaluators and evaluation consumers address the "black box" issues facing many programs. Logic models are ideal tools to use to dissect policies and programs into their constituent parts. This way, the overall explanation of what is expected to occur (and, to some extent, why) can be more coherent.

The next place where evaluation consumers can provide insight into evaluation design is in the development of indicators. Program logic models, in particular, can be used to develop and display quite specific definitions of the evidence that evaluation experts and consumers agree is needed to "indicate" progress from strategy to results during implementation. To inform effectiveness, indicators of strategy and results are needed.

Indicators

We all are familiar with the indicator lights on the dashboard of our cars. These lights call our attention to specific automotive functions or performance issues, and typically they inform corrective steps. A logic model, when used to improve strategy and results, is similar to the dashboard in this example. An evaluation will typically focus primarily on monitoring/measuring the output and outcome elements of a logic model; thus, the output and outcome elements serve as the indicators of program performance. We need indicators to help us understand whether we are making progress. However, as most change does not occur instantly, it is important to have gauges that show progression over time. Indicator development is the step between the development of a logic model and the specification of the metrics (data points) and methods that the evaluation will use.

Indicators are the evidence that will verify progress (or lack of) for a given output or outcome. They can be real measures of the concept or surrogates, which are also referred to as proxy indicators. Proxy indicators are indirect and represent the concept. The number of woman-owned businesses is a real indicator of gender equity in a community. Proportion of women in the Chamber of Commerce is a proxy indicator for the same concept. Proxy indicators are used when a direct measure is unavailable.

Both kinds of indicators, those for outputs and those for outcomes, provide confirming or disconfirming information about progress toward impact. In this text, *process indicator* refers to those indicators selected to gauge progress against the outputs. The process indicators are the evidence you will collect to show what you "did." We use the term *outcome indicator* to distinguish those indicators of progress toward results (may include outcomes and impact). The outcome indicators are the evidence that you will collect to show what you "got."

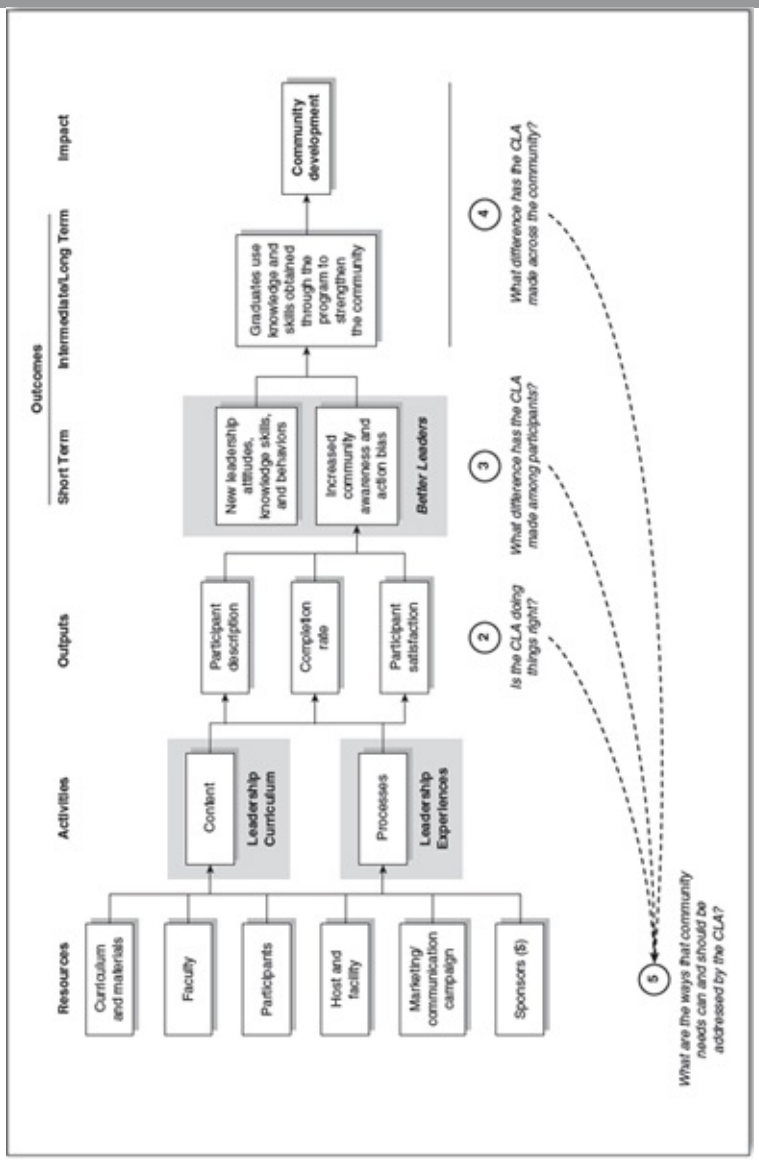
For example, in a model about mine safety, you would need indicators of your efforts to achieve mine safety ("do," the process) and indicators that safety has been achieved ("get," the outcome). You might use a live (or dead) canary as an indicator of air quality (one of the many outputs needed to achieve mine safety). Here, the canary in a cage would be a process indicator. Alternatively, if we are focusing on mine safety as an outcome, accident reduction could be among the many outcome indicators selected. Similarly, if great hitters are important in winning baseball games, then batting averages are an output. Here, things like batting averages and type of hits would be process indicators. Games won would be an outcome indicator.

There is quite a bit of variability in the level of detail and complexity of the concepts reflected in output and outcome statements. In practice, the specification of output and outcome statements is often blurred with indicator development. In the text that follows, we explain the concepts of process and outcome indicators using the CLA example. We take the relatively broad output and outcome statements shown on the CLA program logic model (Figure 5.3) and split it into process (Figure 5.4) and outcome (Figure 5.5) portions. In these two figures, we illustrate the first stage in developing process and outcome indicators needed to inform evaluation design.

To move the logic model from illustrating program design to serving as the framework for evaluation, the outputs need further specification to create the indicators of whether the activities occurred as intended. For a program to achieve its intended results, it is important to have information about both the quantity and quality of the activities as well as the availability of resources to support the work. This is important because the concept of "dose" has a direct influence on effectiveness and your ability to improve your programs, if you think of your program as a treatment or intervention, much like a vaccination might be. How much of your program is actually delivered, who and how many participate, over what time, and how "good" each activity is all play a role in whether a program makes progress toward its intended outcomes and impact.

Figure 5.3 Community Leadership Academy Program Logic Model With Key Implementation

Questions



This information, if collected, can be used to monitor the program to ensure appropriate dose and to explain why progress toward desired results is or is not made. Outputs are concrete aspects of your program that you can adjust, as needed, to amplify your progress. The FIT acronym introduced earlier applies here as well. Establishing process indicators of the *f*requency (how often), *i*ntensity (quality and duration), and *t*argets (with whom) for your activities can go a long way to giving you the leverage you need to boost program performance. In the case of the policy example we used earlier, it is easy to see that a brochure left in the state house lunchroom is less likely to produce results than is a series of lunchtime conversations, one on one with the key house leaders. The brochure is a relatively weak dose of policy-maker education (i.e., single shot, indirect delivery, no follow-up) compared to a more comprehensive relationship-building strategy.

When we apply these concepts to the activities in the CLA example, it is important to specify further the expected outputs. The following formative questions, applied to Figure 5.3, may prompt your thinking about this model. They can be tailored and used with groups to explore the process indicators for models you develop:

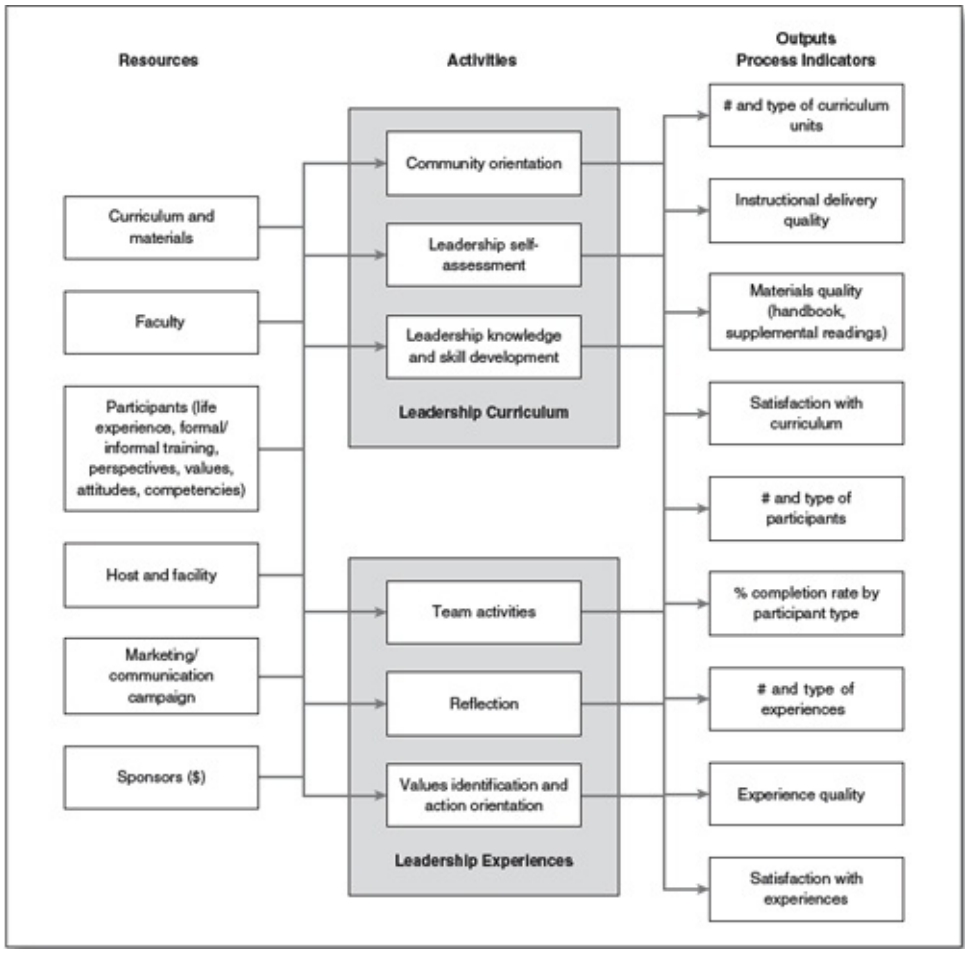
- What outputs would you expect or need to see from the curriculum?
- What outputs would you expect or need to see from experiences?
- What outputs must occur to support subsequent outcomes?

Figure 5.4 shows the range of process indicators the CLA evaluation identified as measures of the output or "dose" of the CLA curriculum and experience. Notice that they specify the quality of curriculum and experiences in addition to listing the typical participant counts and satisfaction. Logic models used for evaluation typically display much more detailed information than those used during program design. Based on your thoughts about the questions above, what might be missing from this set of process indicators? What questions about implementation dose or fidelity might the CLA program not be able to address?

Notice that some of the process indicators are more specific than others. If we were going to continue to develop a full set of metrics for this model, the more complex indicators such as "instructional delivery quality" would need to be parsed into smaller, more measureable pieces. Indicators like "number and type of curriculum units" although more specific, would need instructions on how exactly this would be measured. Typically, for measurement purposes, you want your indicators to reflect a single concept and not be multidimensional. However, this is beyond the scope of this text.

Recall that outcomes reflect the majority of the "getting" side of the logic model. Outcomes are also time sensitive. They occur in a typically fairly ordered sequence. This sequence or outcome chain illustrates the likely steps between "do" and "get." How tight or loose the order is will depend on the type of program being modeled. Sometimes the model might or might not show the specific connections from a given activity to each particular outcome. Some programs lend themselves to the description of distinct pathways from activities to outcomes, while others are more holistic and show all activities leading to all outcomes. The degree to which interdependencies are strictly defined and clear entry points are predetermined can vary considerably. Most models represent a cluster of outcomes that occur at a number of levels (individuals, organizations, systems) from a combination of efforts. In any case, short-, intermediate-, and long-term outcomes inform evaluation design because they indicate when and where to look for evidence. This is particularly true when the program is very complex. What is likely to happen first, and then what? Sometimes the outcomes are sufficiently specified in the program logic model to guide measurement, and other times the model needs to be adapted to serve evaluation design.

Figure 5.4 Community Leadership Academy Process Indicators



Developing evidence that would support your claims that an outcome has been achieved is among perhaps the most important steps in teasing out the specifics of your evaluation design. In individuals, changes in awareness, knowledge, skills, and behavior are a common, expected sequence of outcomes. In organizations or systems, the outcome sequence might include changes in context (the environment or external influences on the program), conditions (policies that govern practice, communication, and networks that spread it), and/or culture (relationships, norms, and values). In some organizations, however, like those in public health, system and organizational changes are necessary precursors to change in behavior at the population level. It is important to understand and display these distinctions when developing models.

Turning our attention back to the CLA example, Figure 5.5 shows the set of initial outcome indicators identified for the CLA evaluation. Notice that the evaluation design does not state the community development impact with any specificity. The evaluation focused on short- and intermediate-term outcomes, in that these outcomes were more closely connected to the program itself as a training initiative as well as the limited budget and time frame available to conduct the evaluation. The CLA evaluation did not intend to test the theory of change beyond the contribution of its curriculum and experiences to more and better leaders. This level of specificity was sufficient to garner agreement from evaluation consumers on the broad categories of outcomes the evaluation would address. In addition, it is important to note how these outcomes meet the SMART criteria for outcomes described in earlier chapters. They are *s*pecific in that they name what will and can be *m*easured. They are *a*ction oriented and *r*ealistic by pointing to attributes that demonstrate accomplishments that could occur. They are *t*imed in that they show the order in which they are likely to occur.

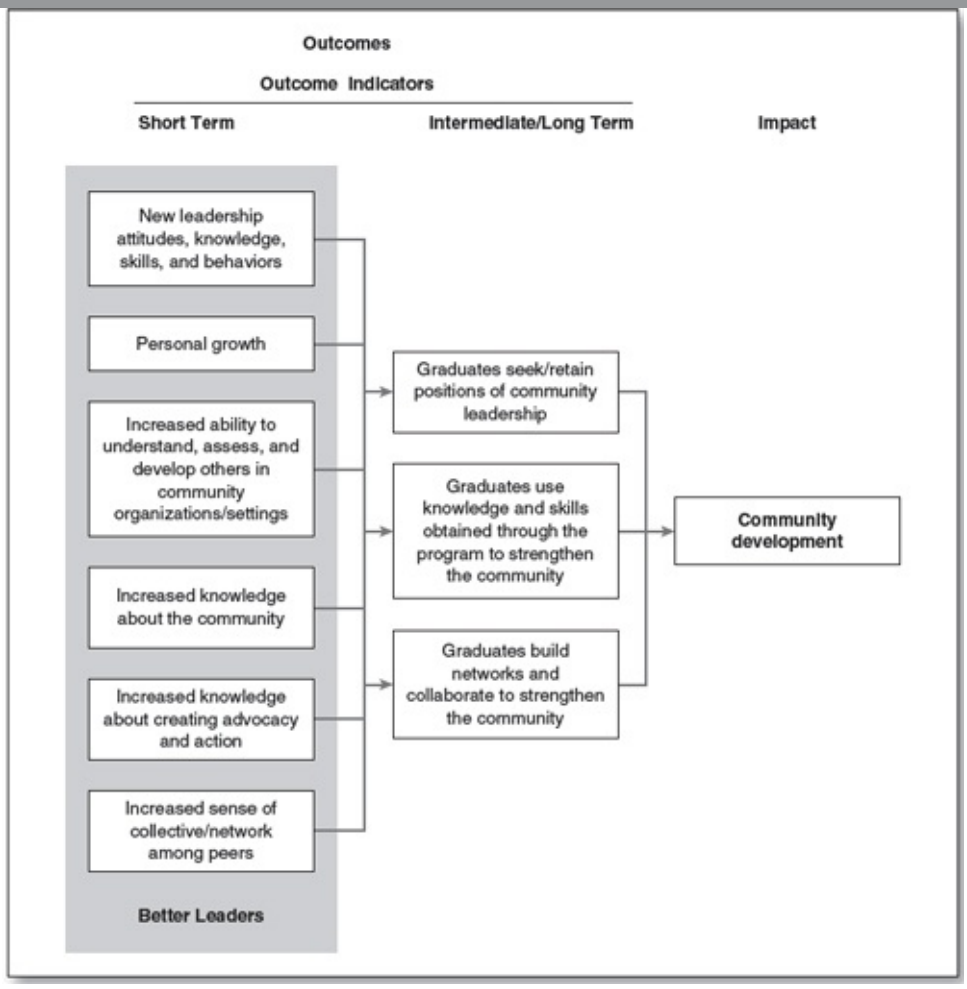
Notice in Figure 5.5 that the outcome indicators are quite broad and clearly multidimensional. This is acceptable at the point in the evaluation process at which decisions about what to evaluate are being made. To move deeper into measurement, as was the case with the output indicators, more

specificity would be needed. For example, the “new leadership attitudes, knowledge, skills, and behaviors” indicator is huge—four concepts, all of which have many dimensions of interest. Taking “leadership attitudes,” you might build on the knowledge that the CLA was based on the work of Robert Greenleaf. You would be developing more detailed indicators that captured the key points of his Servant Leadership approach such as the desire to develop others and the importance of community.

In the overview CLA example (Figure 5.3), the model does not include data collection methods, although logic models tailored for evaluation design sometimes do. The questions stimulate deeper conversation about evaluation design. In particular, the questions lead to discussion of possible data collection, analysis, and reporting issues—this is where most evaluation consumers can add the most value. Coverage of technical evaluation issues beyond the development of basic design questions and indicators is outside the scope of this text.

Data collection methods also influence costs, rigor, and limitations. So be aware that it is important to take evaluation budget and capacity into account when posing the evaluation questions. In moving from the questions to specifying the methods, it becomes obvious, for most programs, that multiple sources and approaches will be needed to secure information. A short list of the most common data collection methods includes document review, surveys, interviews, focus groups, and observation. Specifying methods in the model helps reinforce the integrated information needs your data collection tools will need to serve. This gives evaluation consumers an opportunity to consider the “burden” they are willing to have their program bear to support the planned evaluation (cost and their time). It also provides insight to the evaluation team on how best to approach data collection in the context of the program and its participants.

Figure 5.5 Community Leadership Academy Outcome Indicators



The construction of tools (e.g., survey questions, interview protocols) and data analysis can require special expertise. It is important to realize that the placement of questions on the model implies content they will address. In that way, there can be agreement on the outline of what the evaluation will cover and how it will accomplish its purpose. The specific details of measurement and analysis that follow evaluation design are beyond the expertise of most consumers. Thus, the use of logic models to inform these later steps is beyond the scope of this chapter. Readers interested in more detail on evaluation practice (e.g., theory, planning, implementation, and reporting) are referred to the Supplemental Readings list provided at the end of this chapter.

Indicators and Alignment

The CLA model shows what sequence of changes in awareness, knowledge, skills, and behaviors might need to occur to secure the intended impact at some point in the future. It draws on a frequently utilized feature of logic models. Program design and planning with models use a left-to-right, if–then logic; this allows the developers to prospectively examine the pathways whereby their efforts will achieve success. Evaluation, however, can be diagnostic and more retrospective. This is particularly true when evaluation is conducted for the purpose of program improvement. Here, analytic and reflective thinking processes are used to examine and reconstruct the chain of evidence from right to left. It tests the preceding content relative to embedded and named expectations.

There is an additional value to using logic models in evaluation. If you can demonstrate successful achievement of short-term outcomes, you can then use the “logic” described in the model to reasonably assert that your program could make a contribution to outcomes and impact that take longer or that are too fuzzy to evaluate on a tight budget. What was chosen for display and included in the CLA evaluation telegraphs volumes about some of the assumptions underlying the program design and its evaluation. How might the emphases chosen limit the use of evaluation information to improve the program?

Picking appropriate indicators is important. Selecting indicators has meaning relative to the output or outcome each reflects. For example, weight loss could be a process or outcome indicator of improved health—if obesity is a health challenge. In other circumstances, weight loss may actually be an indicator of health concerns. If student achievement is the outcome sought by a school district, then increased enrollment may not be a good indicator (process or outcome). It could suggest something about the district’s financial health, but it may not be the best indicator of student achievement.

The CLA example demonstrates alignment of indicators in that it includes a relatively robust set of process (output) indicators, fairly comprehensive short-term indicators, and a few indicators of outcomes farther out but on the path to community development. Notice that Figure 5.4 (process indicators) and Figure 5.5 (outcome indicators) look different from the logic model shown in Figure 5.3. These two figures illustrate the areas that the evaluation would focus on, not the universe of all possible indicators. This is a display of the information that stakeholders agreed would suffice as evidence of their programs’ performance. Typically, as mentioned earlier in this chapter, in evaluation, another level of detail would show the specific measures that would be used to unpack each indicator. Many times, a table or matrix is used to better manage display because complexity and level of detail can quickly escalate at this stage.

Sometimes indicators are selected and used to communicate progress, but they are not directly or completely, as in the case of the CLA example, connected with intended impact. These “Trojan horses” can be useful for positioning or marketing, but they can confuse authentic evaluation. It is important to make a critical review of the alignment (direct connection, or link) between a selected

process or outcome indicator and the path you assert leads to eventual impact.

Results Require Choices

Performance Standards

If expectations (or standards) for performance have been cited, then outputs are an easy place to look for both fidelity (how close to plan) and level (dose) of performance. Sometimes expectations are more detailed and qualified. These are called performance standards. Securing better health may require a particular quantity and quality of exercise. The number of hours and type of exercise can be recorded for any given participant. In mature fields, like education and health, we have considerable knowledge about what works under what conditions. Sometimes our knowledge is precise enough that performance standards have been established. As work is planned and evaluated, standards can be helpful in the pursuit of desired results. The CLA example did not set performance standards initially, but once the evaluation design was complete and data were collected, the group would have the information needed to set expectations for the next round of evaluation.

In the CLA example, new or improved skills among participants are indicators of progress toward outcomes. They are one choice on which to focus inquiry. This deliberate choice about focus can occur because the program is displayed graphically. It is easier to see and choose among areas that have explanatory potential when they are named and displayed in a model (instead of narrative). Evaluation could determine whether or not individuals gained new skills.

At any point of time during the program implementation, inquiry could yield many possibilities. Perhaps, in the case of the CLA evaluation, one discovers no new skills were learned or the skills learned weren't relevant to community development. Maybe skill development for individuals happened but the individuals were never engaged in any community projects. Each of these findings would have implications for program improvement. Alternatively, evaluation could look at curriculum content or even at the list of inputs: participants, faculty, marketing, or other areas. To manage cost and effort in evaluation, choices must be made about where to focus the inquiry.

Quality Evaluation Designs

We believe a quality evaluation design should respond clearly to evaluation consumers and their information needs. In other words, the questions named have utility. As you consider evaluation through the architecture of a logic model, the following questions reflect quality considerations. With colleagues, you might develop additional questions relevant to your workplace, project processes, or content. It is important in evaluation to recall that any model is only one way to represent work. It is a view. During evaluation design, it is good to be aware of the many options vying for attention. The same hazards (blind spots, myths, and cultural concerns) that influence circumstances during program design and planning may also present themselves in evaluation. Think about ways to conduct discovery that will identify and resolve these hazards. Multiple models or modeling in service to evaluation provide opportunities to make choices and focus inquiry.

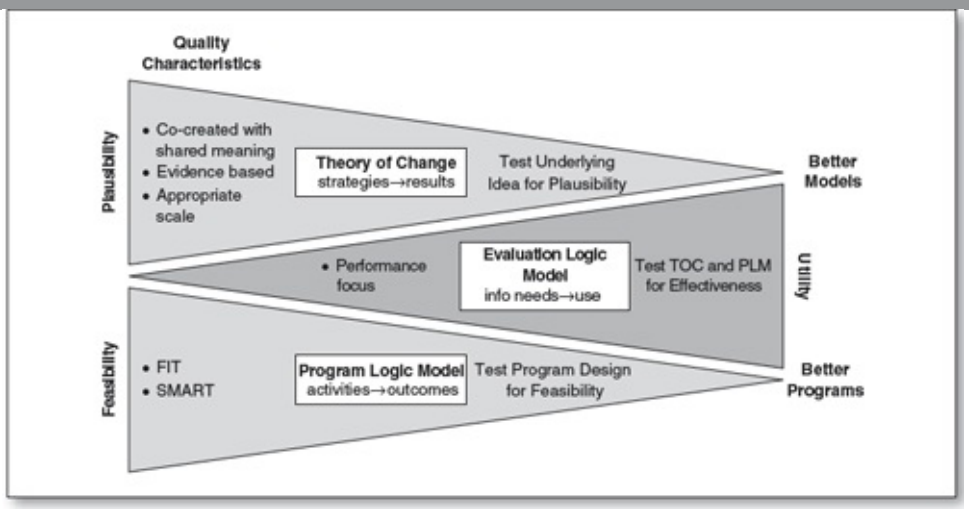
QUALITY QUESTIONS FOR EVALUATION DESIGN

1. Are users of the evaluation specified and ranked relative to priority?
2. Have the information needs of users been specified? What assures use?
3. Will the evaluation improve the work, determine its results, or both?
4. Will the evaluation's key questions meet information needs?
5. Have process indicators been specified and selected for the evaluation?
6. Are there any performance standards established for programs of this type that can assist evaluation?
7. Have outcome indicators been specified and selected for the evaluation?
8. Are the selected outcomes reasonable to expect relative to time and other resources invested in the effort to date?
9. Does the model inform data collection methods?
10. Are stakeholders engaged adequately in the evaluation process (participating when and if appropriate during design, implementation, interpretation) to encourage their use of the findings?

A Quality Framework

Figure 5.6 shows a framework for program and evaluation quality. It assembles the key points from the book's first five chapters. Previously, we described two important standards for model quality: plausibility (theory of change and "could it work") and feasibility (program logic and "will it work under your specific conditions"). The quality characteristics for theory of change models are noted (as in Chapter 2) where the focus is on the relationship between strategies and results.

Figure 5.6 Factors and Features of Quality for Program and Evaluation Design



The quality characteristics for program logic models focus on the strength of the relationship between activities and outcomes. They employ FIT (*f*requency, *i*ntensity, and *t*argets) and SMART (*s*pecific, *m*easurable, *a*ction oriented, *r*ealistic, and *t*imed) principles (see Chapter 4). We suggest that

logic models are extremely valuable for evaluation design. This means the process of modeling surfaces the most important information needs of identified users. Logic models can support and assure that information gathered is used in the pursuit of performance management and greater effectiveness. We think a program, project, or organization is more likely to achieve impact if relative theory of change models are plausible, program logic models are feasible, and the evaluation models that test the underlying assumptions of each are designed for practical use. Similarly, the ideas presented in this chapter could easily be applied in a research design setting—particularly in problem identification and in posing the research questions or hypotheses. Evaluation and research both are inquiry and/or problem solving in much the same way.

IN SUMMARY

In the first half of this book, we posited three questions about effectiveness:

- Are you doing the right work?
- Can you make better decisions?
- Are you getting superior results?

All of these questions, including the third one, require some evaluation literacy. This chapter describes the evaluative thinking and processes logic models can support when effectiveness is given deliberate attention during evaluation. We hope readers will use logic models to contribute to the design of evaluations that will answer these vital questions. They are significantly different from “Are we busy?” These questions focus attention on effectiveness rather than on efficiency or the accomplishment of a laundry list of activities.

Both formative (improve) and summative (prove) evaluations are useful for many reasons. Both of these approaches can help build understanding about what works under what conditions. Because evaluation is a key function in managing for results, this chapter explains how logic models can assist evaluation design directed toward that end. Models help with decisions about the most relevant information and its use. Identifying and choosing among information needs and users focuses evaluation resources where they are most needed to influence effectiveness. These steps are crucial in creating a useful evaluation. Program evaluation and planning are “bookends” that reflect the same thinking and thus share a common theory of change and very similar program logic model views. Specifically, outputs and outcomes can be very helpful gauges for monitoring and improving the status of your work.

LEARNING RESOURCES

Reflection

1. What are the strengths and limitations for evaluation when the logic modeling process has already occurred during program development? What about when it occurs after the program is

under way?
2. What are the various ways that a theory of change and/or logic model can be used to inform the development of an evaluation design?
3. How might the information needs of funders, grantees, evaluators, and participants be different?
4. What relationships exist among evaluation, logic models, performance management, and effectiveness?

Exercises

1. Based on the program, project, or idea you mapped out in Chapter 4, design the key questions and indicators for its evaluation.
2. Using the health improvement example in Figure 3.4, display your version of key evaluation questions. Cite some process and outcome indicators. Compare your approach to that of your colleagues.
3. If the evaluation for the CLA (see Figures 5.4 and 5.5) focuses on two strategies and the impact, what items are completely overlooked and could yield some important information?

References and Supplemental Readings

Texts

Adair, J. (2010). *Decision making and problem solving strategies: Learn key problem solving strategies, sharpen your creative thinking skills, make effective decisions.* Philadelphia: Kogan Page.

Argyris, C. (1993). *Knowledge for action: A guide to overcoming barriers to organizational change.* San Francisco: Jossey-Bass.

Fitzpatrick, J. L., Sanders, J. R., & Worthen, B. R., (2010). *Program evaluation: Alternative approaches and practical guidelines* (4th ed.). Saddle River, NJ: Pearson.

Frechtling, J. (2007). *Logic modeling methods in program evaluation.* San Francisco: Jossey-Bass.

Grantmakers for Effective Organizations. (2007). *Learning for results.* Washington, DC: Author.

Greenleaf, R. K. (1977). *Servant leadership: A journey into the nature of legitimate power and greatness.* New York: Paulist Press.

Hatry, H. (2007). *Performance measurement: Getting results.* Washington, DC: The Urban Institute.

Kapp, S. A., & Anderson, G. R. (2010) *Agency-based program evaluation: Lessons from practice.* Thousand Oaks, CA. Sage.

McDavid, J., & Hawthorn, L. (2006). *Program evaluation and performance measurement: An introduction to practice.* Thousand Oaks, CA: Sage.

Patton, M. C. (2008). *Utilization-focused evaluation* (4th ed.). Thousand Oaks, CA: Sage.

Ridge, J. B. (2010). *Evaluation techniques for difficult to measure programs: For education, nonprofit, grant funded, business and human service programs.* Bloomington, IN: Xlibris Corp.

Spitzer, D. R. (2007). *Transforming performance measurement: Rethinking the way we measure and drive organizational success.* New York: AMACOM.

Stufflebeam, D. L. L., & Shinkfield, A. J. (2007). *Evaluation theory, models, and applications.* San

Francisco: Jossey-Bass.

Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (2010). *Handbook of practical program evaluation* (3rd ed.). Thousand Oaks, CA: Sage.

Yarbrough, D. B., Shulha, L. M., Hopson, R. K., & Caruthers, F. A. (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd ed.). Thousand Oaks, CA: Sage.

Journal Articles

Adler, M. A. (2002). The utility of modeling in evaluation planning: The case of the coordination of domestic violence services in Maryland. *Evaluation and Program Planning, 25*(3), 203–213.

Bellini, S., Henry, D., & Pratt, C. (2011). From intuition to data: Using logic models to measure professional development outcomes for educators working with students on the autism spectrum. *Teacher Education and Special Education, 34*(1), 37–51.

Carman, J. G. (2007). Evaluation practice among community-based organizations: Research into the reality. *American Journal of Evaluation, 28*(1), 60–75.

Ebrahim, A. (2005). Accountability myopia: Losing sight of organizational learning. *Nonprofit and Voluntary Sector Quarterly, 31,* 56–87.

Forss, K., Cracknell, B., & Samset, K. (1994). Can evaluation help an organization to learn? *Evaluation Review, 18*(5), 574–591.

Hayes, H., Parchman, M. L., & Howard, R. (2011). A logic model framework for evaluation and planning in a primary care practice-based research network. *Journal of the American Board of Family Medicine, 24*(5), 576–582.

Herranz, J. (2010). The logic model as a tool for developing a network performance measurement system. *Public Performance and Management Review, 33*(1), 56–80.

O'Keefe, C. M., & Head, R. J. (2011). Application of logic models in a large scientific research program. *Evaluation and Program Planning, 34*(3), 174–184.

Zantal-Wiener, K., & Horwood, T. J. (2010). Logic modeling as a tool to prepare to evaluate disaster and emergency preparedness, response, and recovery in schools. *New Directions for Evaluation, 126,* 51–64.

Internet Resources

Administration for Children and Families. (n.d.) *Evaluation toolkit and logic model builder.* Retrieved December 8, 2011, from http://www.childwelfare.gov/preventing/evaluating/toolkit.cfm

Bureau of Justice Assistance. (n.d.). *Evaluation and performance measurement resources.* Washington, DC: Author. Retrieved December 8, 2011, from https://www.bja.gov/evaluation/evaluation-resources.htm

Centers for Disease Control and Prevention. (2011). *CDC's evaluation efforts.* Retrieved December 8, 2011, from http://www.cdc.gov/eval/index.htm

National Center for Mental Health Promotion and Youth Violence Prevention. (2010). *Safe Schools Healthy Students evaluation tool kit.* Retrieved December 8, 2011, from http://sshs.promoteprevent.org/sshs-evaluation-toolkit/logic-model

The Pell Institute. (2011). *The evaluation toolkit.* Retrieved December 8, 2011, from http://toolkit.pellinstitute.org/

United Nations Population Fund. (2008). *The programme managers planning, monitoring and evaluation toolkit*. Retrieved December 8, 2011, from http://www.unfpa.org/monitoring/toolkit.htm

6

Display and Meaning

This chapter describes selected examples of logic model display and the implications of choices relative to meaning and use. In brief examples, we present models used in private and public sector organizations. The variation in format and content is intentional. These models, presented with some context, are provided to enrich readers' experience and experimentation with features of display.

LEARNER OBJECTIVES

- Identify variations in model format and style
- Recognize that models reflect culture and intended use
- Explore what will and will not work in your organization
- Explain why logic models are highly interpretive

Because logic models are socially constructed, perception, politics, and persuasion are all substantial influences on them. As a graphic display of the general approach to change or as a more detailed description of work, logic models reflect intentional choices of their authors. In reality, models can be compromised by the skills and experiences of their creators, along with the context and purposes they serve. Our own models reflect these influences. For example, sometimes clients *do not* ask for or want modeling ("improved versions"). They simply request documentation of their current thinking. Although Chapters 2 through 5 in this text have suggested quality features and selected principles for creating models, the examples here vary in adherence. As the use of logic models grows, it is possible that standards for them will emerge and be commonly used. Please note that the models in this chapter include model examples that have successfully served specific purposes. We identify variation of some key graphic features preceding each to alert the reader to options you might consider when creating models.

Variation and Learning

It is our experience that variation nearly always offers a rich field for learning. In this chapter, the examples provide a chance to see actual models and how they look with a range of content and functions. Most of the entries are contributions from colleagues who frequently use logic models. One is from our own work with clients. All are influenced by the conditions in which they were created and the people who generated them. And, like most models, all of them could be improved. These examples include both theory of change and program logic models. In several illustrations, the models are templates or umbrellas for subsequent design/planning and evaluation work. They all serve as "organizers" for a shared understanding and a platform or framework to advance other functions, such as communications, evaluation, planning, and research. Prior to the entries, we identify and describe variations of key features in the models presented.

Graphic Display

As logic models are tools that show and support critical thinking, the selection of elements used in their display helps illustrate the subject content in a dynamic way. Models avoid some of the interpretation that dense text requires, but they simply are not immune to interpretation. Because logic models convey relationships among elements, it is important to be conscious of the use of boxes, lines, curved lines, circles, single- and double-headed arrows, and other shapes in terms of their meaning. Further, their creation occurs in context and has meaning for their creators, and this can vary as they are read by others.

Models in the cases range from pictorial images with copy (Example 4) to circular displays (Example 1) and the most common flowchart style that employs text plus symbols and shapes that are

read from left to right. Elements of the models differ, too. Some include inputs, barriers, and facilitators; others do not. Some use arrows, some just lines. Others use neither of these. There is a substantial difference in comprehensiveness. Some are general change recipes, while others offer detail adequate to operate a program. In some cases, the models require the case narrative to understand their content. In others, the models are quickly and completely understood without external copy to support them. Examples 3 and 6 show both a theory of change and a program logic model.

While the use of graphics to convey meaning can quickly become very sophisticated, most people have had some experience with a model or diagram that contains words and arrows. And all cultures have symbols that convey meaning. Many people, North Americans, for example, understand that a lightbulb means an idea, crossed swords means conflict, and linked hands means harmony. However, these symbols are cultural and may have no meaning or different meaning in another context.

Complexity and Meaning

The models shown here and used by practitioners worldwide differ considerably in their complexity. Logic models are often used instead of or as a complement to text because they can simplify and untangle the relationships among elements. They also can be dense or very simple. Their relative complexity is generally a reflection of the number and type of relationships they are communicating.

The New York Healthy Weight (Example 5) Program articulates vision, mission and assumptions. It specifies roles and names external partners. It considers both environmental factors and personal determinants. In contrast, the model that displays a multiyear, multistrategy preschool change effort (Example 3) has different detail and a significant number of arrows to communicate influences among features. The preschool model is used for multiple functions: planning, managing, evaluation, and communication. Examples 1 and 5 also demonstrate that models can vary in their relative prescription, from general to very explicit, and may include target audiences. Models are often used as either umbrellas for clusters of subprojects (see more on this in Chapter 7) or as templates to guide alignment across large organizations. How tight or loose they are as prescriptions will depend on their intended use and the culture of the users.

Moreover, “reading” or interpreting the models in these cases requires entry in different ways. Many are processed left to right, but others are top to bottom or the inverse. Several suggest repeated activity via circular shapes or symbols. And the most pictorial examples (2 and 4) offer several entry points to the content displayed. There are substantial differences among the models relative to the volume and placement of text.

Content, Uses, and Creation

The subject content for each of the models in our examples is distinct. They include citizen scientists, a local food initiative, preschool policy change, collaborative inquiry, weight management, and the nonprofit sector. Models appear to work regardless of the subject matter content. Functionally, they most often serve design/planning, evaluation, and communication. But we have also seen models that guide research management, organization development, learning, knowledge management, and training.

The model content is informed in various ways. All have multiple stakeholders, and some organizations use theory of change and logic models as standard practice. The development of most of the models was externally supported. Often in real-world situations, the thinking behind a model

and its development is not visible to external audiences. Several cases specifically reference theory, evidence, and literature, and they all rely on a continuum of practice experience. While one model required engaging an artist, this is an exception and intentional choice.

Note that Chapter 8 includes the Paint Product Stewardship Initiative model. It offers an application with important features you could consider, including lines, shapes, multiple font types, texture, balance, contrast, unity, and color. It is a new generation of modeling because it provides extensive supplemental resources that inform and extend what information the model displays at first glance. Through hyperlinks and other software features, the model can be accessed and used in multiple ways. The sequence of steps and related processes with stakeholders to generate a model varies considerably. The social construction and technical execution are very important, ultimately, to the utility and quality of the model produced.

Model Benefits

In all of these cases, the models secure at least one important process objective: a shared understanding of the work among stakeholders. They all organize and display relationships among multiple features such as strategies, activities, and results. And they all provide a common vocabulary and framework for those involved in model creation. Some of the models support operations and others are simply input to the creation of other models or a framework that provides "tent stakes." Regardless of scale (a project, initiative, organization, or other), models can be an important anchor for implementation, evaluation, dissemination, or other next steps because they quickly convey the parameters and content of a bounded effort. Describing the "it" is vital to prospective work. It serves as construct explication.

Some models describe an organization's direct and indirect influence, and several of the cases suggest the important implication of time as their models parse outcomes in a sequence or the accompanying narrative references this feature. Direct influence means that the organization can take actions that will likely affect cited outcomes. Indirect influence is a reference to work that is dependent on other organizations, individuals, or target markets to act in a particular way before outcomes may occur. Time is a particularly important feature to identify in a model and to look for when reading one. Time is not often labeled in years but rather in generic qualifiers like "short" and "intermediate." These phrases can have very different meanings among readers. Occasionally, definitive parameters for time are omitted intentionally.

Alternative Approaches

Causal loop diagrams and logical frameworks (also known as logframes) are two other approaches to modeling the connections between "do" and "get." Causal loop diagrams are used to display complex systems behaviors. They highlight the influential forces acting on cause-and-effect relationships. They also show patterns of how and why things change rather than a static snapshot. They have much less text than traditional logic models and are more schematic in appearance. They use interlocking circles, arrows, and other symbols to display cycles. These types of models are most often used by practitioners active in systems thinking and organizational learning.

Logical frameworks grew out of the Management by Objectives movement in the 1970s. They are typically a four-by-three matrix. The rows describe objectives/goals, purposes, outputs, and activities. The columns address achievement indicators, verification means, and important risks/assumptions. The construction process emphasizes testing the vertical and horizontal logic. These frameworks are

widely used internationally by development agencies, nongovernmental agencies, and philanthropies.

In addition to using different elements, logical frameworks differ from logic models in several important ways. Logic models are generative in that they typically emphasize the desired outcomes or impact. In contrast, logical frameworks begin with an analysis of the problem(s) and thus are a more reactive approach. In logic models, the assumptions are propositions upon which the strategies and clusters of activities are based. Alternatively, the assumptions in logical frameworks are those conditions that must exist for the program to be implemented. References for these alternative approaches are provided at the end of this chapter.

Selected Examples

The following examples include both theory of change and program logic models in different formats with different content and uses. We hope that your exposure to these materials helps you to explore important choices as you create models that are most useful to your work and stakeholders. These interesting examples are shared to display relative diversity. Each and every logic model is distinct—although there are some common features among them. Most of the models and associated descriptions were contributed by colleagues in academia, the government, and the private and nonprofit sectors. This range provides multiple perspectives and contexts.

At the beginning of each, we suggest one way to read the model and offer comment on selected features. In most examples, we share the model with associated narrative (boxed copy) contributed by colleagues who were involved in its creation and use. Last, we ask some thought-provoking questions about the display, meaning, and use. Each example also includes some additional resources.

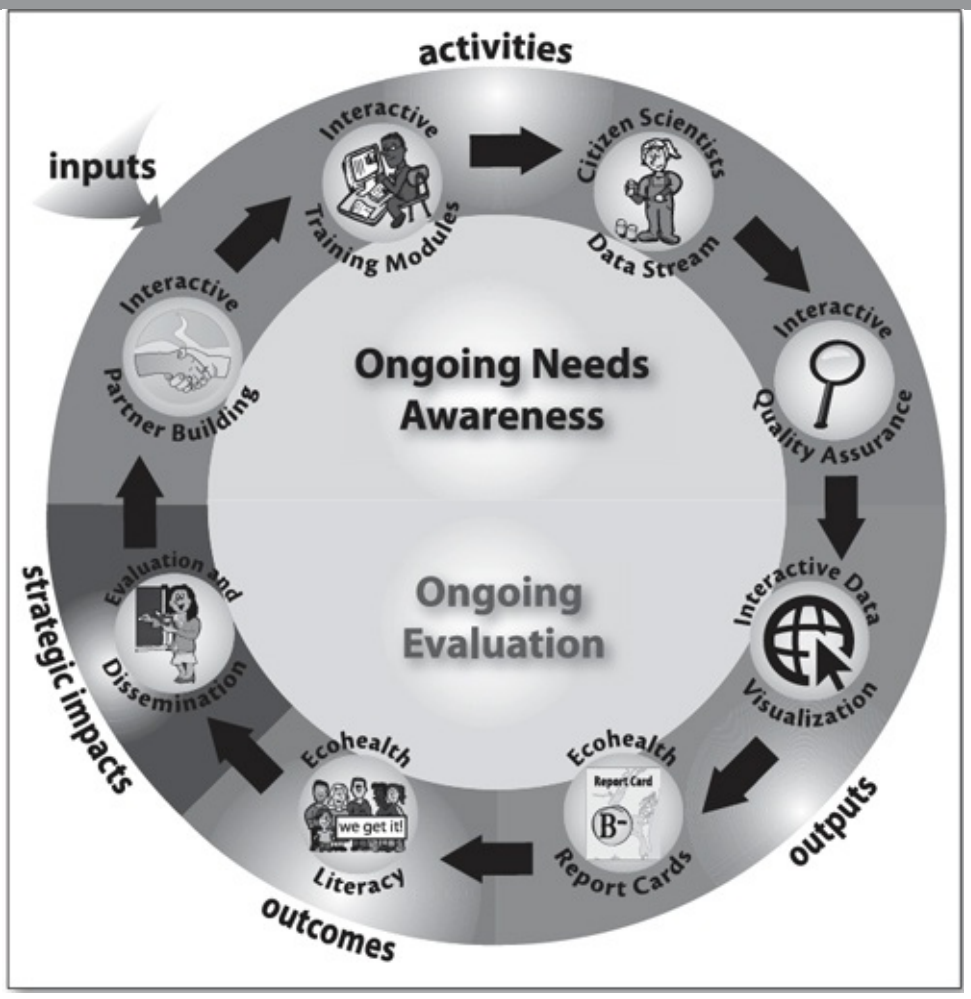
All the models in the following cases are versions of an initial effort to capture and communicate. When people read (or interpret) a model, they should ask, “What is this telling me?” As you explore the examples, it is valuable to consider how the context may have influenced the model. It may also be useful to think how you and your colleagues would create models for the purposes named. What revisions would you make and why? Small changes, just moving a line or element to a different area in the display, can be very significant. We encourage use of the Resources section at this chapter’s end because it can help in using these examples for additional learning.

Example 1: Eco Hub

This circular model (Figure 6.1), referred to by the creators as a logic map, has two primary spheres of tasks that feed the cycle and are labeled as “ongoing.” They are needs awareness and evaluation. These represent upper and lower halves and are designated by color. They are centered at the core of the graphic. The model uses an “earth tone” palette of blue, green, brown, and related colors to signal a reference to its subject matter, ecology and earth science. The font labeling tasks icons is clear, strong, and easily read. Associated icons appear with each task. They are symbolic (e.g., magnifying glass, clasped hands) and literal (a scientist from clip art). The arrow placed adjacent to “inputs” signals that readers can begin review or access the model at that point. The top half of the circular model is a blue pathway and suggests a coherent group of tasks that are part of the citizen awareness activities. They include partner building, training, data stream, and quality assurance. Each task is qualified as interactive. The bottom half of the circle is labeled “evaluation” and has three sections. It includes the outputs on a gray pathway: visualization and report cards. The next section is

"outcomes," on a green pathway underneath the copy. Finally, third is "strategic impact," which lies on a brown pathway. The three sections in this lower half are denoted by new color. Between each of the eight tasks is a heavy arrow that pushes the reader forward on the circular path. The dependent sequence is clear and the color use is integral to understanding how the elements of the model are related.

Figure 6.1 Eco Hub Program Logic Model



Source: Integration and Application Network, University of Maryland Center for Environmental Science, 2010.

The logic map describes a project designed to develop a citizen scientist network and increase environmental literacy. Read clockwise, the reader begins at Inputs at the top left. The inputs, activities, outputs, outcomes, and strategic impacts are linked together in a recurrent circular set of tasks. The inputs and activities use an ongoing needs assessment to inform these tasks. The outputs, outcomes, and strategic impacts utilize ongoing evaluation and enhancement to optimize effectiveness. There are eight activities in the logic map: interactive partner building, interactive training modules, citizen scientist data stream, interactive quality assurance, interactive data visualization, eco-health report cards, environmental literacy, and evaluation and dissemination. A series of icons links the steps (inputs, activities, outcomes, and strategic impacts) together.

The model is used on the Eco Hub website to illustrate how the project can develop a citizen scientists network and increase environmental literacy. It relies on experience from many other examples of projects that have successfully taken data, synthesized the information, had strategic impacts, and effected change. It hypothesizes that this can also be done with citizen scientists and

monitoring data. This model was created by the Integration and Application Network, a small group within the University of Maryland Center for Environmental Science.

Questions

1. Are the icons in this model helpful or confusing?
2. What unique messages does the circular format convey?
3. How would you draw this model with boxes and arrows?
4. How does color help show relationships (see the following link)? What limitations are presented when shown in black and white?
5. What's missing in this model?
6. Would this model work in your organization? Why?

References

For more information about Eco Hub and to view the logic model in full color, see http://www.eco-hub.org/about/.

Eco Hub is a project associated with the Integration and Application Network (IAN) at the University of Maryland Center for Environmental Science. See http://ian.umces.edu/(retrieved January 10, 2012).

Example 2: Wayne Food Initiative

The Wayne Food Initiative (WFI) elected a distinct and evocative format to display their important community-based work to build a local, sustainable food system (see Figure 6.2). The deep brown trunk and roots are drawn in several pieces that convey defined elements of their work. Central to the trunk of the tree are group values. These cite what the Initiative considers central: youths, farmers, health, education, food system, community, equity, and justice. Group values (what and whom) contribute to their strategies. The WFI strategies first "connect & strengthen," then "assess & strategize," and, third, "promote & grow local." Above the strategies are primary tree branches that illustrate program areas with specified tactics.

The four branches, read left to right, name farmer support, food sovereignty, public campaign, and youth programming. In bright green leaves shooting from the branches, there is a range of activities associated with the specified program branch. For example, on the youth programming branch, the reader is introduced to food assessment, by-and for-youth workshops, garden, and public art projects as well as community reads.

On the left, below a branch, the model names "outputs" via a listing near a bit of brilliant red "fruit" from the tree. This fruit symbol appears adjacent to the green leaf tactics across the crown of the treetop, too.

On the far right, a small seedling is associated with an "outcomes" listing that includes increased farmer sustainability, capacity, community food sovereignty, public food system literacy, youth leadership, and youth food system businesses.

Below the tree trunk, at ground level, the model identifies "acquired resources." This is a listing

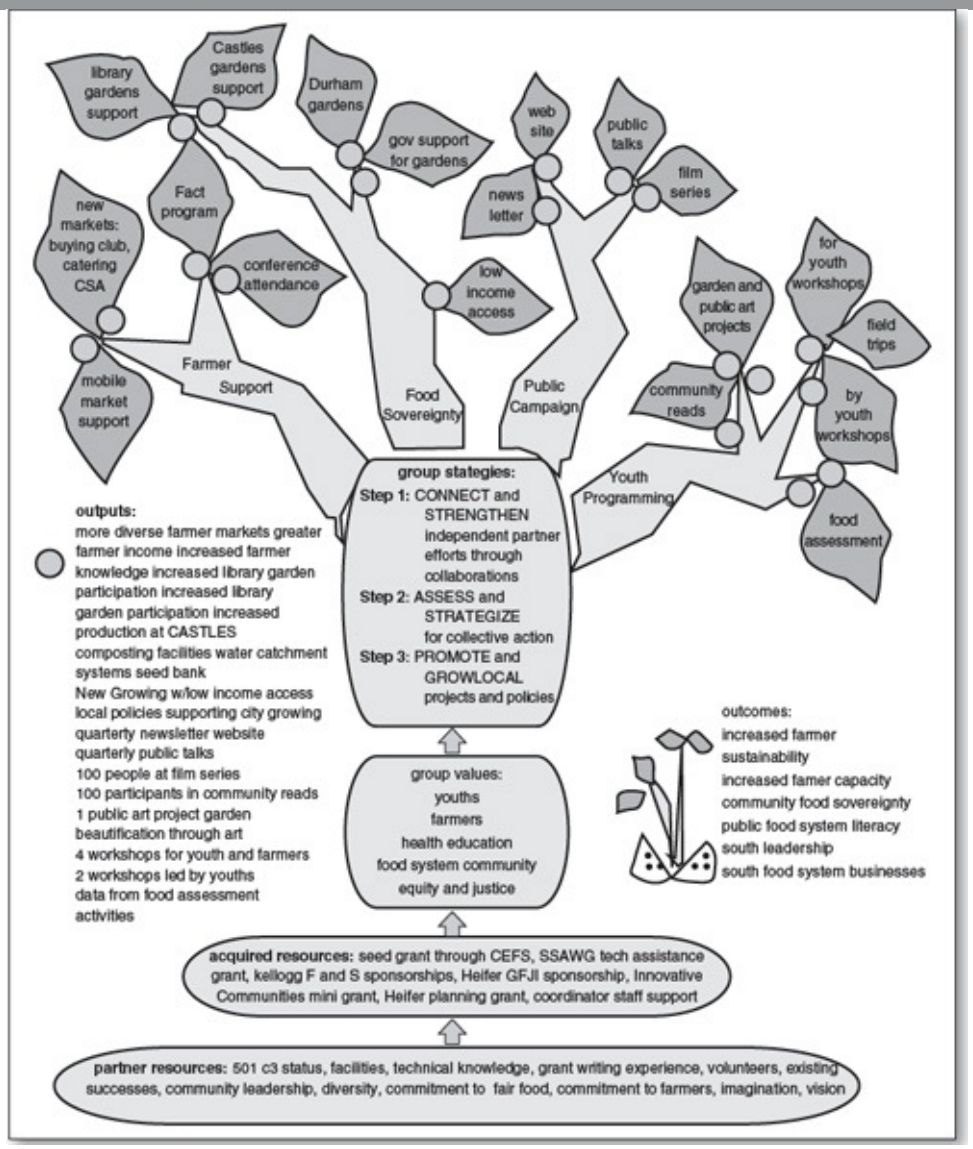
of financial capital from a variety of sources. Below it, the feature identifies “partner resources.” These include a charitable entity, facilities, knowledge, experience, volunteers, past success, community leadership, diversity, commitments to fair food and farmers, imagination, and vision.

The WFI model was completed by a community collaboration focusing on local food systems as a process for community organizing. They involved about 30 people led by a facilitator who completed it after several months of small group meetings.

The model is effectively read bottom to top in a cycle fashion, from roots up the tree to the fruit, down to fallen fruit seeding new trees. The tree elements are symbolic to allow for ease of expression. Roots are resources, reminding us that our work comes from strengths, not merely needs. The trunk is the collective values that form the foundation as well as core strategies. The large branches hold objectives and leaves, activities. The fruit is literally the fruit of WFI labor, which always has the potential to seed new work or new directions.

The model is grounded in community knowledge of asset-based opportunities. This tree is both an external communication tool to explain what work the collaboration is about and an internal image reflecting the organization of the objectives and activities.

Figure 6.2 Wayne Food Initiative Program Logic Model



Source: Wayne Food Initiative, 2007.

Questions

1. Does the tree format help or hurt the intended messages for the Wayne Food Initiative? How would this novel approach to display be received where you work?
2. Is it helpful to distinguish strategies from program and tactics as this model does?
3. What advantages and disadvantages do you see in a model in this format?
4. Could you easily use this model to inform evaluation design? What helps and what hinders?

References

For more information about Wayne Food Initiative, see www.waynefoods.org and/or http://www.cefs.ncsu.edu/whatwedo/foodsystems/waynefoodinitiative.html. Both retrieved December 12, 2011. Their fascinating logic tree in full color can be found at http://www.waynefoods.files.wordpress.com/2008/12/wfi-plan-tree-logic-model.jpg (retrieved December 12, 2011).

Example 3: Promoting Preschool Change

This entry includes three models: a basic theory of change, an expanded theory of change, and a program logic model. The case is about using advocacy to achieve policy change. The basic theory of change model for this case relies on applied political science research. In his well-known research on agenda setting, political scientist John Kingdon (1995) describes what it takes to get an issue on the public policy agenda. The public policy agenda is the list of issues or problems considered by policymakers. Getting on the agenda or positioning an item there as a priority involves several processes: problems, proposals, and politics. Kingdon's theory of change model for policy is illustrated in Figure 6.3.

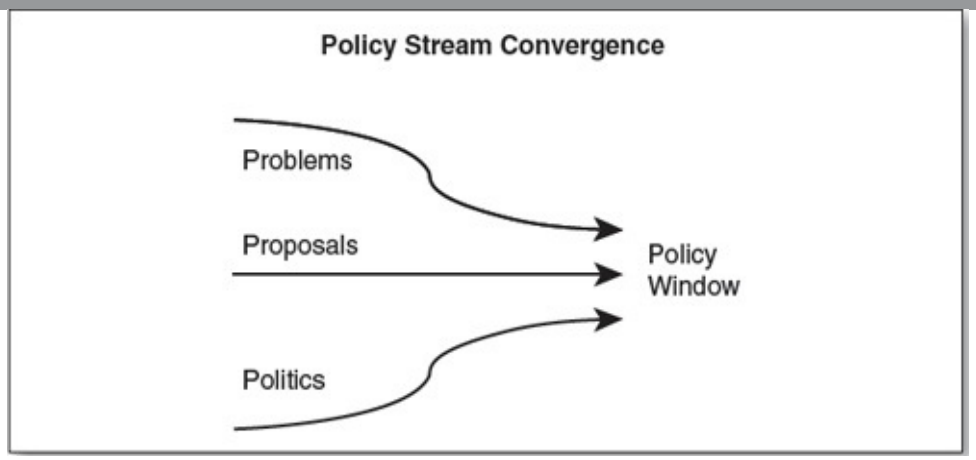
In this basic model, the stream of problems, proposals, and politics occurs concurrently for individual policy issues. Problems are the process of persuading policymakers to pay attention. It is "making the case" and defining the reasons a particular issue demands action. Proposals are the process of remedy—their generation, debate, revision, and adoption. And politics are the many factors that influence the political context. They include climate, culture, and advocacy for and against proposals.

In Kingdon's research, he found the success of agenda setting was dependent on the three processes. While these three elements operate independently, the actors in each process can overlap or interact. When at least two of the processes intersect at a critical time, then a policy window occurs. These windows represent an opportunity to advance policy on a particular topic or issue.

The expanded theory of change (Figure 6.4) reads from left to right. It shows the connection between the three elements of Kingdon's theory (shaded) with the strategies and outcomes specific to the David and Lucile Packard Foundation's Preschool for California's Children grantmaking program. Packard's Research strategy addresses the policy problem stream. Evidence from research will be used to think about and frame the problems that quality preschool can address. The Leadership and Engagement strategy focuses on the identification and development of policy solutions (proposals) and the building of key leader support for these solutions. The Flagships and Local Strategy serve further to increase visibility and demand. These in turn influence the public and

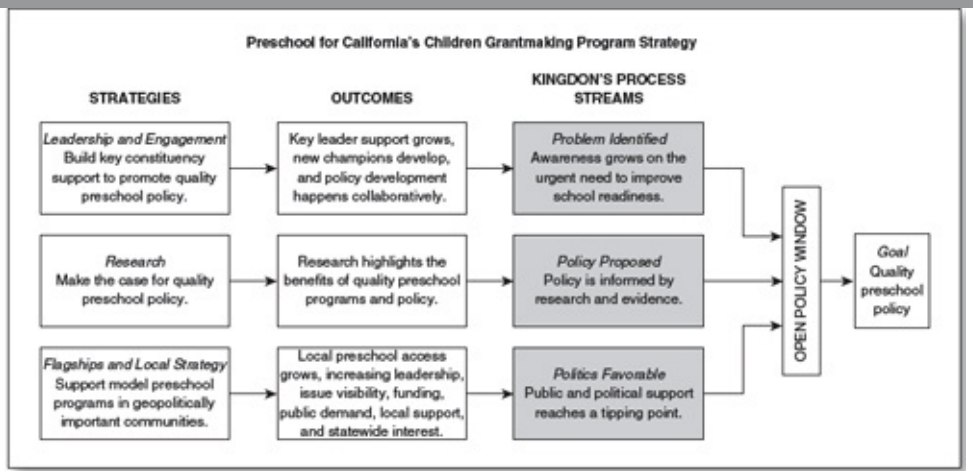
political support for the policy solutions. The three elements of problem, proposals, and politics together open policy windows from which quality preschool policies can emerge. A strong reliance on communication as a support strategy is implied in this model.

Figure 6.3 Kingdon's Policy Stream Convergence



Source: Coffman, 2007.

Figure 6.4 Application of Kingdon's Theory to Packard Preschool Program

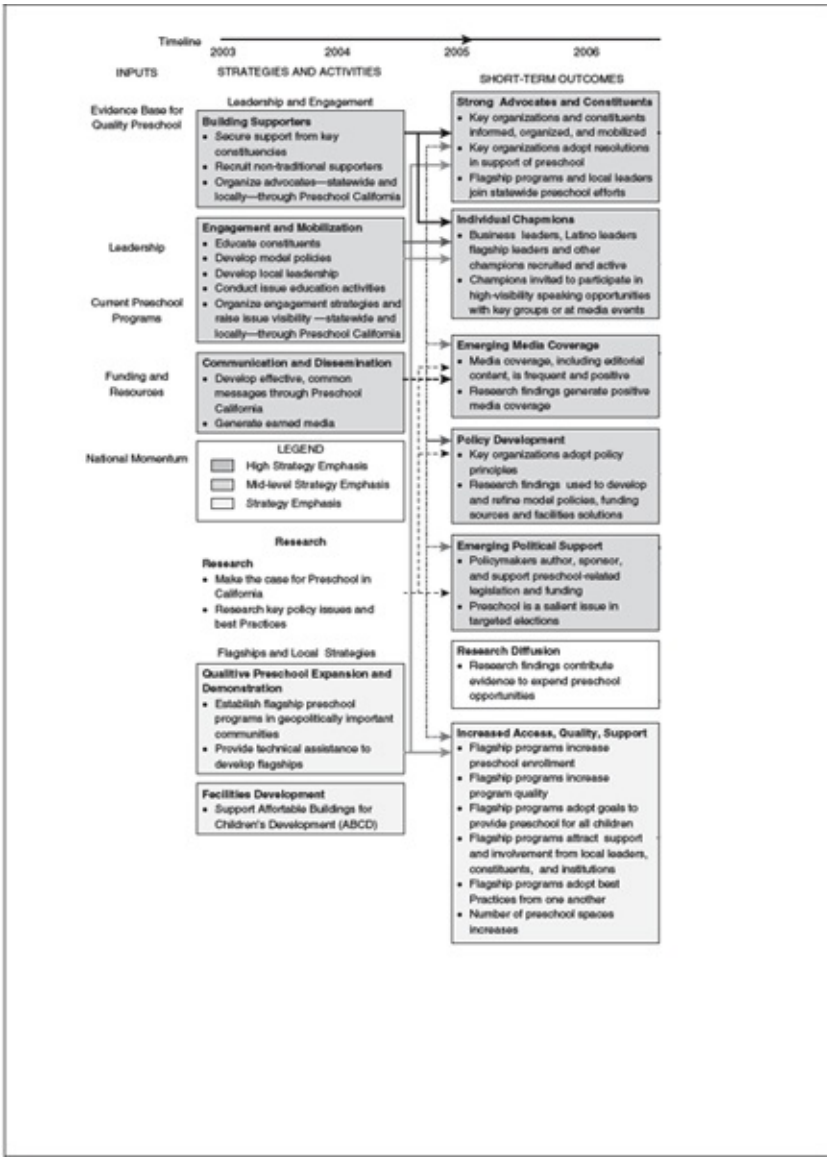


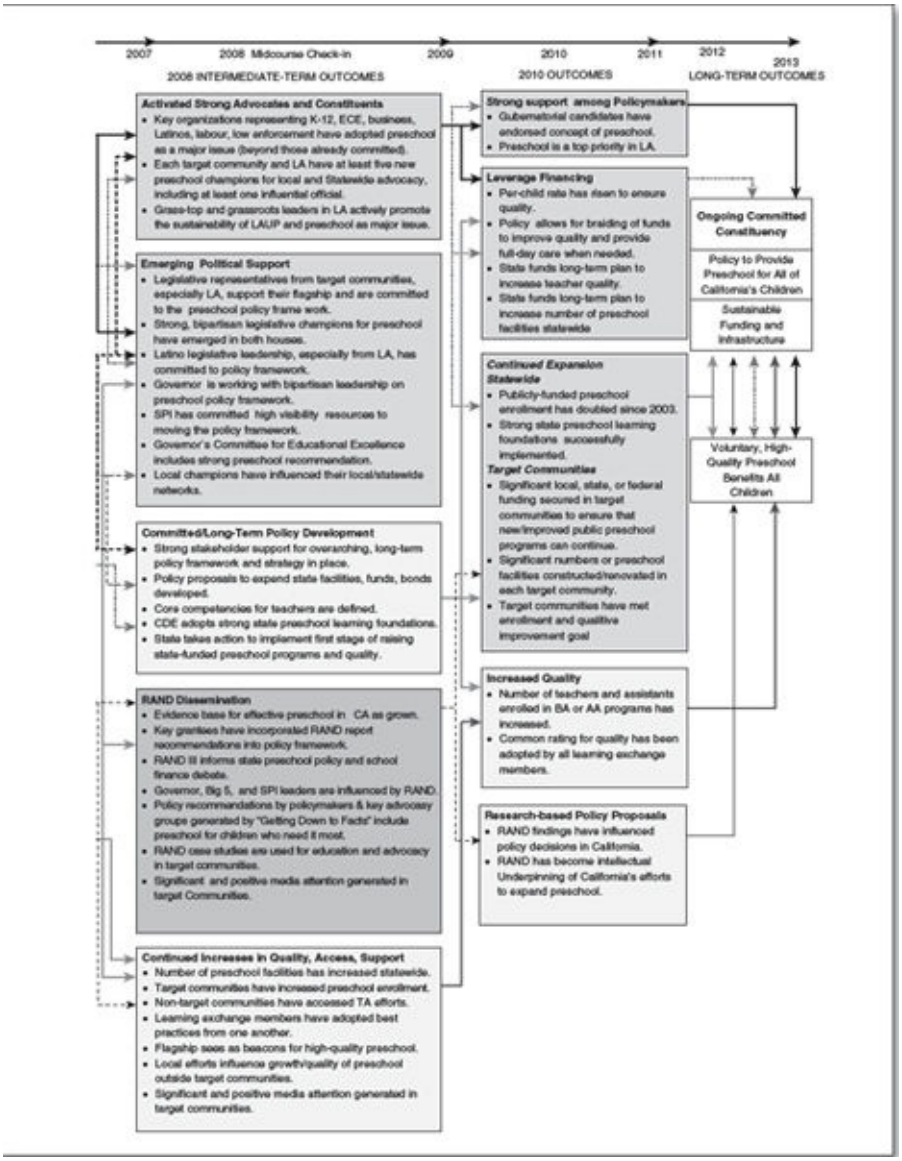
Source: Coffman, 2007.

The policy stream convergence theory represented by this expanded model is key to reading the program logic model we describe next.

Although ambitious and specific outcomes are named in the Preschool Logic Model (Figure 6.5) at the far right, this model is typically read from left to right. We begin with "inputs" and the column titled Strategies and Activities. The second column details three primary areas of work, which include Leadership and Engagement, Research, and Flagships and Local Strategies.

Figure 6.5 Packard Preschool Logic Model


Timeline
2003
2004
2005
2006
INPUTS
STRATEGIES AND ACTIVITIES
SHORT-TERM OUTCOMES
Evidence Base for Quality Preschool
Leadership
Current Preschool Programs
Funding and Resources
National Momentum
Leadership and Engagement
Building Supporters
• Secure support from key constituencies
• Recruit non-traditional supporters
• Organize advocates—statewide and locally—through Preschool California
Engagement and Mobilization
• Educate constituents
• Develop model policies
• Develop local leadership
• Conduct issue education activities
• Organize engagement strategies and raise issue visibility —statewide and locally—through Preschool California
Communication and Dissemination
• Develop effective, common messages through Preschool California
• Generate earned media
LEGEND
High Strategy Emphasis
Mid-level Strategy Emphasis
Strategy Emphasis
Research
Research
• Make the case for Preschool in California
• Research key policy issues and best Practices
Flagships and Local Strategies
Qualitive Preschool Expansion and Demonstration
• Establish flagship preschool programs in geopolitically important communities
• Provide technical assistance to develop flagships
Facilities Development
• Support Affortable Buildings for Children's Development (ABCD)
Strong Advocates and Constituents
• Key organizations and constituents informed, organized, and mobilized
• Key organizations adopt resolutions in support of preschool
• Flagship programs and local leaders join statewide preschool efforts
Individual Chapmions
• Business leaders, Latino leaders flagship leaders and other champions recruited and active
• Champions invited to participate in high-visibility speaking opportunities with key groups or at media events
Emerging Media Coverage
• Media coverage, including editorial content, is frequent and positive
• Research findings generate positive media coverage
Policy Development
• Key organizations adopt policy principles
• Research findings used to develop and refine model policies, funding sources and facilities solutions
Emerging Political Support
• Policymakers author, sponsor, and support preschool-related legislation and funding
• Preschool is a salient issue in targeted elections
Research Diffusion
• Research findings contribute evidence to expend preschool opportunities
Increased Access, Quality, Support
• Flagship programs increase preschool enrollment
• Flagship programs increase program quality
• Flagship programs adopt goals to provide preschool for all children
• Flagship programs attract support and involvement from local leaders, constituents, and institutions
• Flagship programs adopt best Practices from one another
• Number of preschool spaces increases



Source: Packard Foundation, 2007.

Leadership and Engagement will cultivate a strong and diverse group of advocates for preschool, both statewide and locally. Research will support projects that reinforce the evidence for preschool value. Flagships and Local Strategies will provide examples of success through support for preschool expansion, quality improvements, and constituency building. Outcomes are parsed by time in three stages: short, intermediate, and long term. This model includes a specific timeline for implementation and outcome achievement. It includes process and outcome indicators shown as bulleted lists within each of the shaded rectangles.

This model ranks strategies and associated outcomes by emphasis. The legend in Figure 6.5 shows that the highest strategic emphasis is shaded the darkest (Intermediate-Term Outcomes, Dissemination). The original model also used colored arrows to differentiate and depict relationships connecting strategies/activities with their specific intended outcomes over time. Assumptions about relationships are implied by the arrows among elements. This quantity of arrows depicts a highly interactive and integrated body of work. Arrowheads show that the majority of the relationships are one way, indicating progress toward outcomes moving toward the right. Four named outcomes indicate intentions for comprehensive and specific change in the right-most column. Double-headed arrows here (Long-Term Outcomes) illustrate the reciprocal and likely amplifying relationship between the connected cluster of terminal outcomes and the overarching result of quality preschool.

The Preschool for California's Children logic model is a graphic representation of the David and Lucile Packard Foundation's preschool grantmaking program. Within the Packard Foundation, Preschool for California's Children is referred to as a subprogram, and it is within the broader Children, Families and Communities Program. It depicts our core grantmaking strategies and illustrates how we expect funded activities to produce outputs and outcomes that build toward the ultimate goal of voluntary, high-quality preschool for all of California's 3- and 4-year-olds.

The original logic model was created by program staff but was later modified in collaboration with the external evaluation design process. The logic model flows from a theory of change advanced by political scientist John Kingdon, who posited that policy change occurs when three catalytic elements (problem, policy, politics) come together at the same time. Advocates must seize upon the window of opportunities when these three streams converge.

This program logic model translates the theory of change into a detailed plan of action, connecting activities to outputs to short-, intermediate-, and long-term outcomes over time. It contains three core strategies: Leadership and Engagement, Research, and Flagships and Local Strategies. It is expected that the combination of outcomes from all three strategies will generate increasing progress toward outcomes. It is important to note that the three core strategies are all interconnected. For example, in this logic model, if one follows the flagship strategy of Quality Preschool Expansion and Demonstration horizontally across the page, one observes a number of significant local outcomes related to access and quality. However, more pivotal to achieving the big win, flagships will also contribute "vertically" to leadership and engagement goals of recruiting champions, generating media coverage, growing public support, and providing models for policy development.

The Preschool Logic Model is not only a useful graphic for understanding the effort, but it is also an important planning tool for evaluation. Evaluators use logic models to provide a blueprint for evaluation, interpret evaluation results, and facilitate contingency planning. Based on the preschool logic model, the Harvard Family Research Project evaluation team identified evaluation questions, outcomes to be examined, and indicators to measure those outcomes. The logic model also provides insight into timing, for setting prospective benchmarks, scheduling data collection, and subsequently gauging whether sufficient progress has been made. Where progress isn't happening, the anticipated connections between the boxes in the logic model may not form, inducing us to make midcourse correc tions or rethink parts of our strategy and modify the logic model. The program logic model is malleable; activities and their associated indicators may change in response to contingencies, but the fundamental theory remains constant. This model is a revised version.

At the Packard Foundation, both theory of change and logic models are essential components of good programmatic strategy development and management necessary to help us achieve greater impact in our work. Theory of change and logic models are developed, reviewed, and/or revised for many reasons.

For us, a theory of change serves as a tool with three purposes: planning, communication, and monitoring. First, developing a theory of change encourages strategic thinking, as one clarifies the connections between desired outcomes and the strategies and activities designed to achieve them. It illuminates underlying assumptions, explores the larger system in which the change will take place, and brings to bear relevant evidence or experience in support of the assumptions.

Second, by making specific the desired outcomes, strategic pathways, and underlying assumptions, a theory of change promotes transparency and provides a platform for engagement with stakeholders, particularly grantees. Grantee partners should be able to understand the theory of change and connect their work to it. A theory of change helps to clarify roles and expectations.

Finally, the theory of change serves as a basis for the monitoring and evaluating approach. Since the theory of change helps to describe the assumptions that their work is testing, it points to what needs to be assessed in a monitoring plan.

We believe that theory of change and logic models should be developed by engaging multiple perspectives and drawing on existing knowledge and experience. Grantees, stakeholders, experts, and Foundation staff can and should be engaged. In defining the landscape, outside experts can be very helpful in developing background papers or other inputs that can inform the development of the framework. Given their central role in implementing the theory of change, grantees must be engaged at some stage. The subprogram staff lead is the primary architect of the theory of change and logic model.

Questions

1. What features do you like and dislike in this model? Why?
2. What are other ways you can imagine the content of this model displayed?
3. Would a model like this one get use in your workplace?
4. Is the comprehensiveness of this model helpful or overwhelming? Why?
5. What key evaluation questions are inferred by the model?
6. Could you prepare a request for proposal from this model that would assist grantmaking? Why or why not?

References

For more about the David and Lucile Packard Foundation, see http://www.packard.org.

Coffman, J. (2007). Evaluations to watch: Evaluation based on theories of the policy process. *Evaluation Exchange*, *13*(1), 6–7. Retrieved December 12, 2011, from http://www.hfrp.org/evaluation/the-evaluation-exchange/issue-archive/advocacy-and-policy-change/evalua tion-based-on-theories-of-the-policy-process

Kingdon, J. W. (1995). *Agendas, alternatives and public policies* (2nd ed.). New York: Longman.

Example 4: Collaborative Learning, Inquiry, and Practice

Reading this distinct illustration-type logic model (Figure 6.6) could start at several different points of entry along a path or a roadlike arrow from left to right. The relative size and strength of the word *impact* draws attention to the far right side of the display. Intellectually, the impacts listed for participants/members encourage the reader to search out information about the “CLIPs” to understand how this term is defined. Information that typically on a logic model might be labeled as inputs, activities, and resources is placed as precursors on the path that weaves across the diagram. Moving to the far left corner, it feels natural to explore the “key features,” “relationship emphasis,” and “the three inquiry steps” that provide information about the program, much like the activities column in a more traditional model. Notice the spiral encircling the person; this likely infers the iterative nature of the inquiry process. Dropping down the model to the lower left corner, the “supporting structures”

are defined, and these are similar to the type of information in an input column. The relationship "guiding principles" follow, and these describe attributes of CLIPs that could be interpreted as shorter-term outcomes for the CLIP process that contribute to member impact.

This model also uses a vine to organize features in relationship to each other. Male and female figures are strategically placed with positive, energetic postures. Signs and pages with text are repeating features that are used instead of boxes and arrows to draw the reader's attention from left to right. Several sizes and styles of font are also used in what could be interpreted as a hierarchy of importance. This program draws on a broad literature base, grounded in evaluative and appreciative inquiry, to validate the strength and direction of relationships among inputs, activities, outcomes, and impact as displayed.

Communities of Learning, Inquiry, and Practice (CLIPs) are self-selected informal, dynamic groups of community college faculty and/or staff (and sometimes others) who conduct an inquiry about a topic they identify and see as important. The inquiry steps are (1) design the inquiry, (2) collect data, and (3) make meaning and shape practice. Through participation in the CLIP, members build their capacity to collaboratively conduct such inquiries and enhance their professional practice. A member within each CLIP serves as its Facilitator. An overall CLIP Guide positions the CLIPs at the college and supports the CLIP work by handling coordination, organization, and financial matters related to CLIP work.

CLIPs provide opportunities for community college faculty and staff to collaboratively study issues of importance to them about student learning and success. CLIPs add vitality to institutionally determined assessment, program review, and planning processes. The CLIP process is being developed through an evaluative research study at Bakersfield College conducted by InSites (a nonprofit organization) under a National Science Foundation grant (Grant Number REC-0335581). The purpose of the grant is to develop the CLIP process as an evaluation capacity building process.

To construct the theory of change/logic model for the CLIP process, I drew on the data I gathered as part of the research in my role as the first CLIP Guide. I also used data gathered by our external formative evaluators. Using these data, I worked with a visual artist to create the model.

The diagram is used to help people who are involved in CLIPs keep the big picture in mind concerning their work. It also is used to inform others of the CLIP process (through conferences, meetings, and online) and to recruit additional CLIPs. It has been made into a large poster so it can be displayed on walls in meetings. We have given people individual copies to reference to keep in mind the whole process and where they are in that process. The diagram depicts individual CLIPs within a college. This version is the second version of the model. Initially, Guiding Principles were not included because they had not yet been determined.

One challenge in developing this type of diagram is finding a visual artist to work with you to create it. Another challenge is keeping it updated, since it is expensive to have an artist redo it. It raises the question of how long you can use a diagram when it doesn't quite represent the project anymore. We found that it was still very useful and we could describe the changes that were emerging as the research continued. The diagram was a fine tool for working with the people who were directly involved in the project and having them see their experiences captured visually. It helped them put all the pieces together and share their experience with others. In this case, I think "a picture is worth a thousand words" was very true. The shortest description we had when we first developed the diagram was four pages. This visual with the human figures gave the four pages life, personalization, and meaning. Its colorfulness also attracted people's attention.

Questions

1. Would this style of model have appeal in your organization? Why or why not?
2. What skills and resources would be important in creating models in this format?
3. What significance do the vine, signs, pages, and figures have for you? Would others share your interpretation?
4. In what other ways could you display the content of this model?
5. How does this model compare and contrast to others in this chapter?

References

Online modules are available for people to learn how to implement CLIPs on their campus. The modules are available free through the InSites website at www.insites.org. The modules can be downloaded and adapted to other contexts.

Brown, J., & Isaacs, D. (2005). *The world café: Shaping our futures through conversations that matter.* San Francisco: Berrett-Koehler.

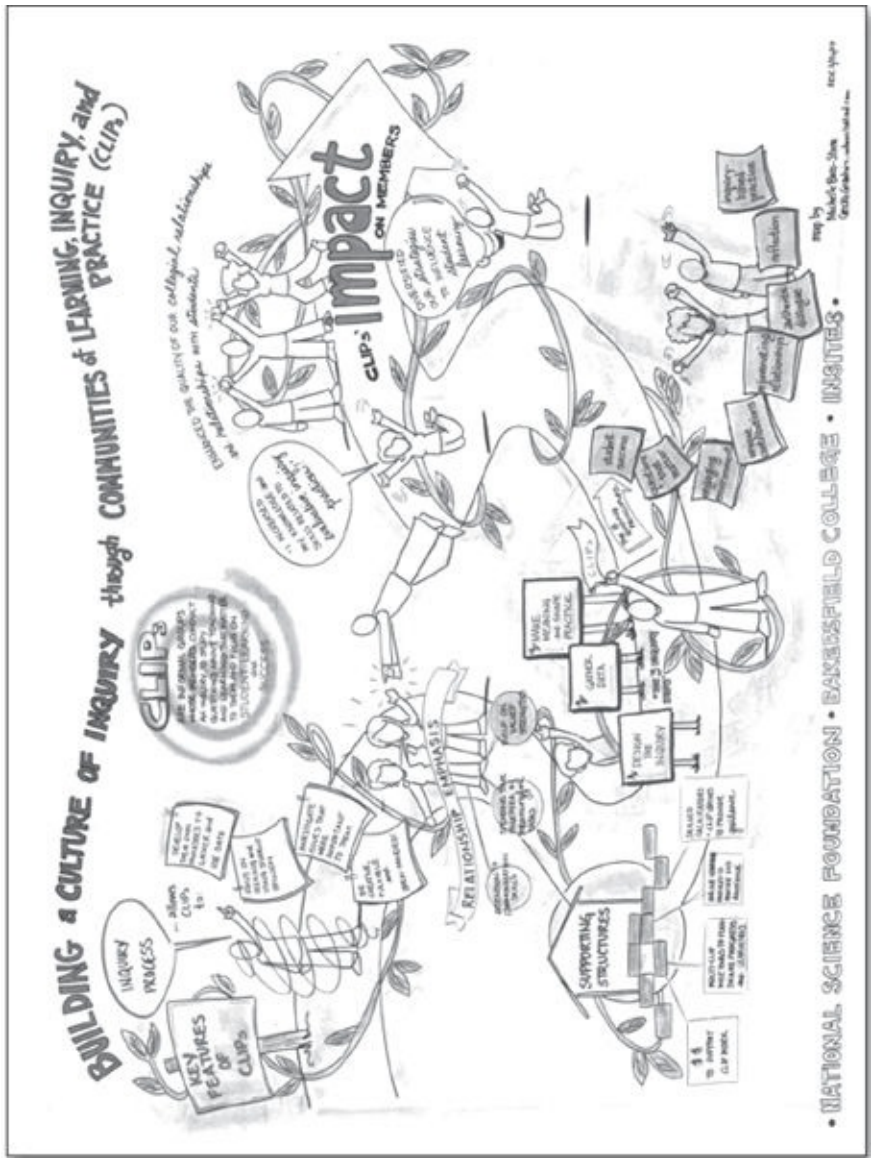
Hughes, P. M. (2004). *Gracious space: A practical guide for working better together.* Seattle, WA: Center for Ethical Leadership.

Maki, P. (2004). *Assessing for learning: Building a sustainable commitment across the institution.* Sterling, VA: Stylus.

Mohr, B., & Watkins, J. (2002). *The essentials of appreciative inquiry: A roadmap for creating positive futures.* Waltham, MA: Pegasus Communications.

Parsons, B. (2002). *Evaluative inquiry: Using evaluation to promote student success.* Thousand Oaks, CA: Corwin.

Figure 6.6 Communities of Learning, Inquiry, and Practice Logic Model



Source: Parsons, 2006.

Example 5: New York Healthy Weight Model

This model (Figure 6.7) is included because it has a vertical orientation that is read from top to bottom and is an interesting contrast to those with a left-to-right orientation or a circular form. It also includes some specific references to both structures and targets that make it distinct and useful. Color, shapes, and a few arrows are used to organize the content and convey messages. The long-term impacts (at the bottom of the model) reflect a very simple prescription that is evidence based for weight management: "increase energy expenditure and decrease caloric intake."

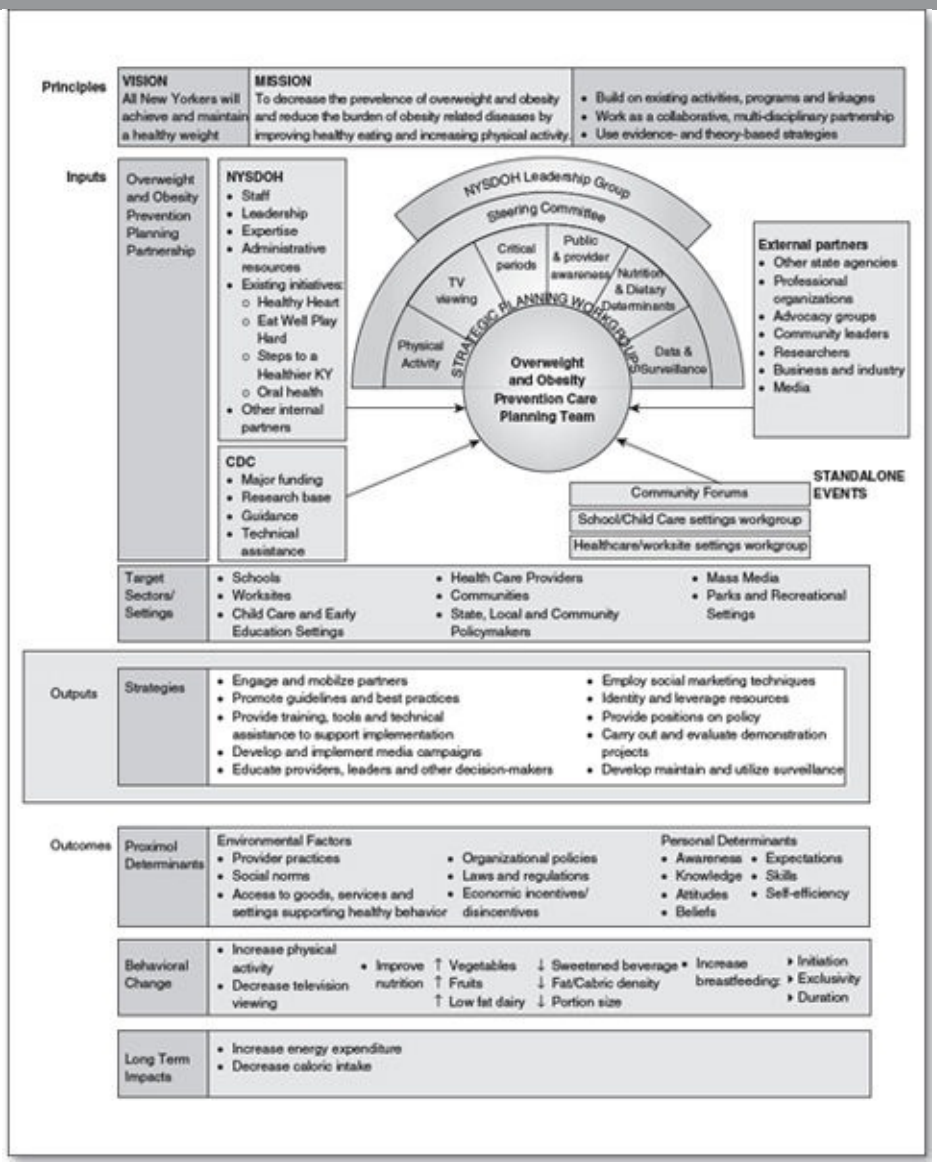
Starting at the top left of the model, notice the sections of content are organized by Principles, Inputs, Outputs, and Outcomes. Each section includes one or more rows that begins with a subhead associated with that row category and appears on a black field. To the right of Principles, the vision for the work is cited: "All New Yorkers will achieve and maintain a healthy weight." Moving to the right, the mission is named in narrative and some assumptions are also cited. This row offers an inclusive, high-level description of the planned work.

Immediately to the right of the section labeled Inputs is a column that identifies a structure charged with implementation of the planned work, the Overweight and Obesity Prevention Planning

Partnership. Moving further to the right in this section, primary inputs of the New York State Department of Health (NYSDOH) are identified. They "rest" on a box labeled CDC (Centers for Disease Control and Prevention), which also specifies inputs. Centered in this row is a gauge or dial feature that shows layers of structure that imply a hierarchy. At the center is a core planning team topped by work groups with specific focus on a steering committee and, at the highest level, a leadership group embedded in the state department of health. Feeding this central core, on the right, are a list of external partners and some standalone events that will be produced. This row combines a complex structure of operation with inputs (or resources). Just below it, in the same row, the authors identify target sectors/settings for the planned work. The arrow between all the other content in the Inputs row indicates the inputs are aimed at these targets.

The Outputs section has a single row that includes a list of 10 strategies. It includes feasible approaches such as "Employ social marketing techniques; Educate providers, leaders and other decision-makers; Develop, maintain and utilize surveillance." The bottom section includes three rows: proximal determinants, behavioral change, and long-term impacts. The first, proximal determinants, is divided into two gross categories of environmental factors and personal determinants. Both categories named here, as well as behavioral changes, could be useful in evaluation design and planning. The behaviors this model indicates the Partnership work aims to influence are physical activity, television viewing, and nutrition.

Figure 6.7 New York Healthy Weight Program Logic Model



Source: NYSDOH, 2010.

Questions

1. Why would it be important to include as much content about the structures of operation as this model does?
2. How and when would you use this model?
3. Are the vision and mission features helpful to include? What about the assumptions? Why?
4. Would this model be useful to action planning? Why or why not?
5. How would you draw this model with a left-to-right or other orientation?
6. Is the level of detail in this model adequate for evaluation design and planning? Why? Why not?
7. Is the top-to-bottom orientation a good approach? Why?

References

For more information about the Overweight and Obesity Prevention Planning Partnership in New York, see New York State Department of Health (2010). *New York state strategic plan for overweight and obesity prevention.* Albany, NY: Author. Retrieved December 12, 2011, from http://www.health.ny.gov/prevention/ obesity/strategic_plan/docs/strate gic_plan.pdf

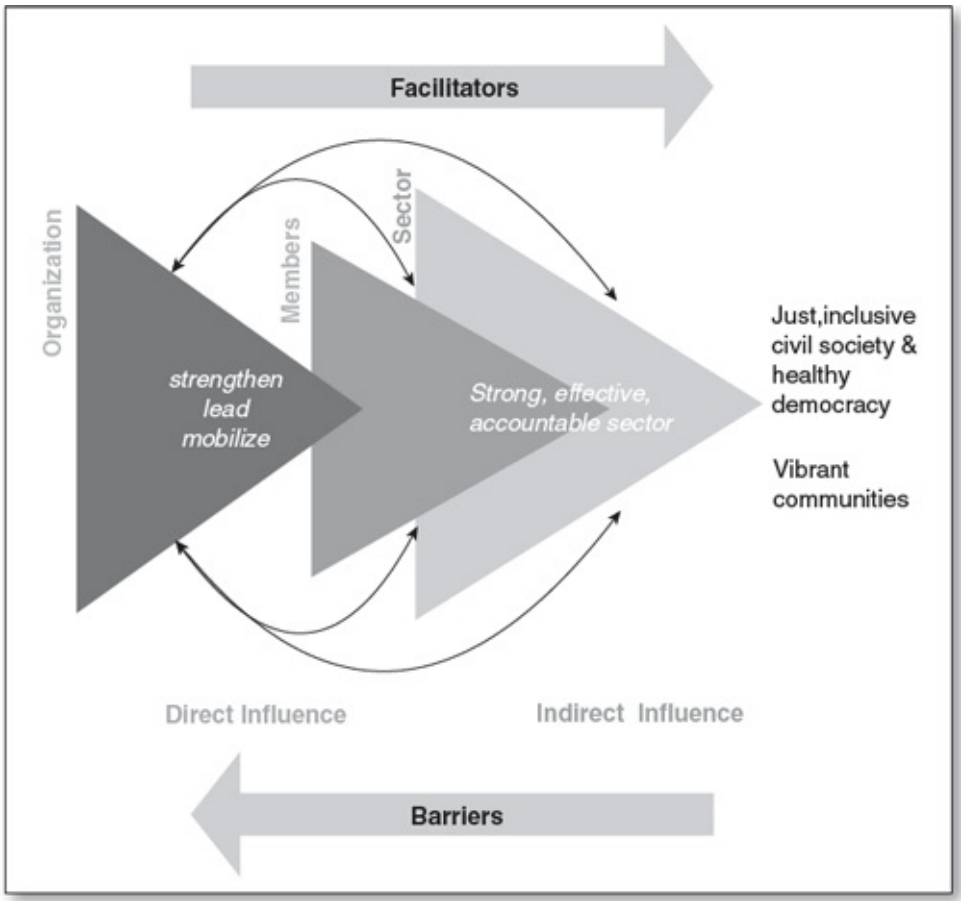
Example 6: Evaluation System Development

This example includes both a theory of change and a program logic model. The Independent Sector (IS) theory of change model is read from left to right (Figure 6.8). IS work begins with their efforts, as an organization, to strengthen, lead, and mobilize their members, who influence the sector and ultimately generate two primary outcomes.

This model employs arrows and text only. It is simple and displays an explanation of how change is expected to happen. IS influence is characterized in two ways: direct and indirect. The most direct influence is that which IS has on its members; this is shaded the darkest for emphasis. The indirect influences are those mediated by IS members on the sector as well as those mediated by the sector on communities and society. Lighter and lighter shading is used to show the changes in influence. This distinction is one way to communicate visually which of the outcomes and impacts are closest to the work of the organization. Thin double-headed arrows are used to indicate an interactive and reciprocal feedback relationship, with IS bridging members to sector to society.

When using models to design evaluations and evaluation systems with a relatively short time horizon, we suggest the use of direct and indirect influences. This device helps to keep the “do” and “get” relationship most tightly coupled. This way, the later models can focus on those outcomes with the strongest and closest connection to those aspects with the highest strategic priority. The concept of enabling and disabling environmental issues is captured in the arrows labeled Facilitators and Barriers.

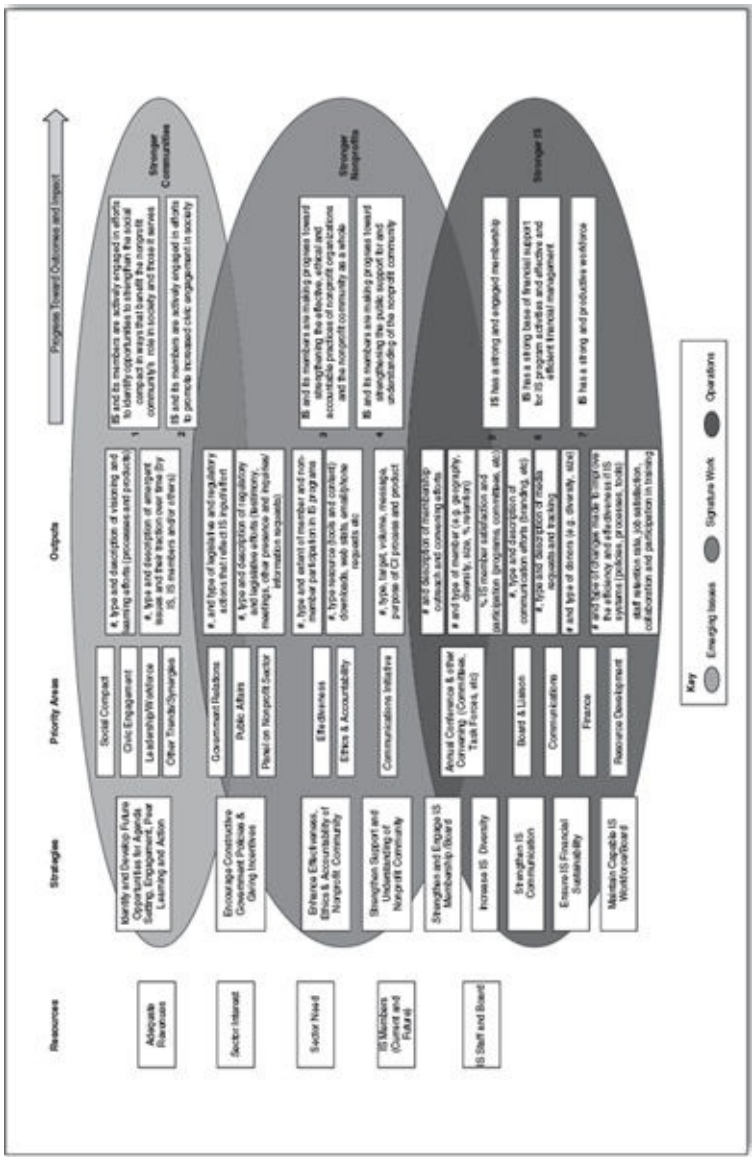
Figure 6.8 Independent Sector Theory of Change Model



Source: Independent Sector, 2007.

The IS program logic model (Figure 6.9) is read from left to right, and content is grouped in three areas relative to outcomes: emerging issues (Stronger Communities), operations (Stronger IS), and signature work (Stronger Non-profits). The priority areas are included because they have special significance to staff. They reflect internal action plans and accountabilities. Outputs result from strategies in the priority areas (here, a large number of activities are subsumed). They contribute to IS outcomes. The strength of communities (society), nonprofit organizations (members and the sector), and IS (the organization) are all linked to the outcomes named in the theory of change. This model displays the work of the entire membership organization; thus, there is a wide variety of targets for outcomes (e.g., members, staff, policymakers, sector influentials). This model is used for monitoring (process side, outputs) and evaluation (outcomes). The intent is to be explicit and to show reflection processes for staff that connect data from each side to inform the work of the whole.

Figure 6.9 Independent Sector Program Logic Model



Source: Independent Sector, 2007.

In this model, the ellipses are critical features that convey groups, flow, and relative (internal) value. They show the strands of work from strategies through to desired outcomes and impact. They intersect to show interaction and integration among program elements. The Priority Areas column is a custom element that is important for organizing information and meaning for those creating and using the model. The model describes “progress toward outcomes and impact” on the far right. It does not, intentionally, define time in months or years. Progress toward outcomes is used to indicate that a sequence of outcomes from awareness through to action is implied. The broad outcome statements are unpacked in detailed indicator and data collection tables not highlighted here. Arrows are not used. This is because of the highly interwoven nature of the organizations work across departments. All strategies contribute to all outcomes. The outputs and outcomes shown in this model draw on a variety of communication, policy advocacy, and individual behavior change theories. Resources, at the far left, are synonymous with inputs and are essential to the organization’s work.

Independent Sector (IS) is a nonprofit, nonpartisan coalition of approximately 600 charities, foundations, and corporate philanthropy programs that collectively represent tens of thousands of charitable groups in every state across the nation. Its mission is to advance the common good by leading, strengthening, and mobilizing the nonprofit community.

As part of its commitment to continuous improvement, Independent Sector secured grant funds to design and implement an evaluation system prototype. The models discussed in this example are part of early efforts to develop an evaluation system that will meet selected formative and summative information needs of the organization.

To create a shared understanding about what could be included in an evaluation system, IS senior staff and an IS board member, with support from Phillips Wyatt Knowlton, Inc., created both a theory of change model and a program logic model. Both types of models were generated over several meetings with the staff, with modifications made as a result of subsequent discussions that clarified various aspects of the organization's work. Also important to the development of the models were the organization's strategic business plan and annual departmental work plans, as were the experiences and perspectives of staff.

Independent Sector's theory of change model displays its distinctive role in strengthening, leading, and mobilizing the nonprofit community. This role is designed to support a more effective, more accountable sector, which in turn can support a just, inclusive civil society, a healthy democracy, and vibrant communities. This theory of change model recognizes the direct influence of Independent Sector on its members and the nonprofit community as a whole and, by working through these organizations, the indirect influence IS has on the sector and society. Defining the ways in which IS can have influence helps to determine where to focus evaluation efforts so that the organization is assessing the areas with greater potential for direct influence. The model also recognizes the dynamic external environment in which IS operates, including the issues that facilitate the organization's efforts and the barriers that it faces.

IS's program logic model includes the organization's "priority areas" that reflect the focus of staff efforts. Much of the work of IS takes place across departments through integrated strategies and approaches. While logic models generally offer a sequence of short-, intermediate-, and long-term goals, the breadth and depth of IS work occurs on a far greater scale than can be captured with the limited resources available for this project. Rather than building the evaluation system around long-term goals, the logic model and the evaluation process show outcomes as indicators of progress rather than on a set timeframe. Using this model, senior staff were able to focus the collection of evaluation data on selected outcomes. The priority areas that were selected for the initial focus of the pilot evaluation system were its work on public policy on behalf of the nonprofit community; providing leadership on ethics, accountability, and effectiveness; and building a strong membership base.

Prior to this project, Independent Sector had not formally used logic models, although several staff members were aware of them in other contexts. Staff found the graphic display to be useful in articulating the way the organization works, its goals, and intended outcomes. The models were also instrumental in underscoring the integrated nature of strategies, activities, and tasks among IS departments. Several strand models, displaying greater detail about a specific area (e.g., policy), were created to support inquiry and dialogue around monitoring.

Creating and using the models has contributed to building evaluation capacity with the staff as versions were built and combinations of elements were assembled and recast. The logic model provided a shared understanding of the organization's intended outcomes and how it works toward those outcomes. This, in turn, enabled external facilitators to explore and design an evaluation system that could ensure that the information gathered would be of use to IS management.

Questions

1. Is the level of detail in the theory of change model adequate to explain how change is expected to happen? Why or why not?
2. How would you draw a model representing the IS theory of change?
3. Are the relationships between the theory of change and program logic model evident? Why or why not?
4. What are the advantages and disadvantages of not specifying time in the program logic model outcomes?
5. Could you build action or project management plans from this program model? Why or why not?
6. Is there enough information to generate evaluation questions from the theory of change or program model?
7. Are the ellipses adequate in organizing the content, left to right, or is more detail about relationships between activities and outcomes necessary? Why or why not?

References

Creation of this model was led by Phillips Wyatt Knowlton, Inc. For more information about Independent Sector, see http://www.independentsector.org.

IN SUMMARY

Logic models describe and reflect thinking about programs. They are a display of information and the relationships among elements that depends largely on graphic presentation. In practice, logic models address a vast range of content areas and formats. Some are simple and others are complex, even dense. They are influenced by who creates them, their relative experience and skills, culture, and intended use. Sometimes models are used as templates to align and organize related work. The choices of elements used in a model are significant in their interpretation. Often, models are read left to right. Circular displays, top-to-bottom, and other orientations are increasingly common. This chapter offers examples of real-use models with considerable variation.

LEARNING RESOURCES

Reflection

1. Is there consistent use of symbols and shapes in the case models? How do you ensure models are “read” or interpreted with the same meaning by everyone?
2. Does your field or workplace have technical or cultural standards for communicating that might influence your models?
3. What do the examples suggest about how models can be used to transfer and diffuse ideas? What challenges would an organization face using logic models as a communications tool? What

benefits seem evident?

4. What do the cases suggest about the use of logic models in the context of measurement? How can models support measurement and evaluation?
5. Which applications are most like and most different from your current use of models? How? Why?
6. What level of detail is most useful in a given model? Why?
7. How does color or lack of it affect the models? What about font type, arrows, shapes, columns, rows, texture, icons, and other features?

Exercises

1. Select a case and conduct a mark up (see Chapter 4). What changes would you make? Why? Compare the model you create with versions created by colleagues. Discuss your differences. Which model do you think is the best and why?
2. Divide the cases in this chapter among your colleagues and contribute your analysis to the matrix below:

Case and Model	Display Features	Use	Creators, Process	Other

   Once this matrix is completed, discuss the variation among models. Which feature choices might work best under what conditions?
3. Select a theory of change model from the cases and apply the suggestions we offer in Chapter 2. How would the model change?
4. Select a program logic model from the cases and apply the modeling suggestions we offer in Chapter 4. How would the model change?
5. With your colleagues, list the stakeholders in any case you choose. Then, independently, cite with whom and what action steps you would use to generate a program logic model. Compare and contrast your list of stakeholders and sequence of steps with others. What rationales are used to explain differences?
6. Choose any of the models shown here and draw a new version of it with different format and features.

References and Supplemental Readings

Texts

Buzan, T. (2002). *How to mind map: The thinking tool that will change your life.* New York: Thorsons/HarperCollins.

Craig, M. (2003). *Thinking visually: Business applications of 14 core diagrams.* New York: Continuum.

Duarte, N. (2008). *Slide:ology: The art and science of creating great presentations.* Sebastopol, CA: O'Reilly Media.

Horn, R. (1999). *Visual language: Global communication for the 21st century.* Bainbridge Island, WA: MacroVU, Inc.

Lohr, L. L. (2003). *Creating graphics for learning and performance: Lessons in visual literacy.* Upper Saddle River, NJ: Pearson Education.

Margulies, N. (2005). *Visual thinking: Tools for mapping your ideas.* Williston, VT: Crown House.

Nast, J. (2006). *Idea mapping: How to access your hidden brain power.* New York: John Wiley.

Neumeier, M. (2006). *Zag. The number one strategy of high-performance brands.* Berkeley, CA: Peachpit Press, New Riders. Arnheim.

Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future.* New York: Riverhead Trade/Penguin.

Racine, N. J. (2002). *Visual communication: Understanding maps, charts, diagrams and schematics.* New York: Learning Express.

Reynolds, G. (2012). *Presentation Zen: Simple ideas on presentation design & delivery* (2nd ed.). Berkeley, CA: Peachpit Press, New Riders. Arnheim.

Roam, D. (2008). *The back of the napkin: Solving problems and selling ideas with pictures.* New York: Portfolio/Penguin.

Roam, D. (2011). *Blah, blah, blah: What to do when words don't work.* New York: Portfolio/Penguin.

Internet Resources

In addition to the other modeling resources cited in Chapters 1 through 5, see the following:

Logical Frameworks (Logframes)

ACP-EU Technical Centre. (n.d.). *Smart tool kit for evaluating information projects, products and services.* Waginingen, Netherlands: CTA. Retrieved December 10, 2011, from http://www.smarttoolkit.net/node/376

Asian Development Bank. (1998). *Using the logical framework for sector analysis and project design: A user's guide.* Mandaluyong City, Philippines: Asian Author. Retrieved December 11, 2011, from http://www.adb.org/Documents/Guidelines/Logical_Framework/default.asp

Food and Agriculture Organization of the United Nations. (1999). *Manual on logframes within the CGIAR system.* Retrieved December 10, 2011, from http://www.fao.org/Wairdocs/TAC/X5747E/x5747e00.htm#Contents

International Labour Office. (2006). *ILO technical cooperation manual: Development cooperation.* Version 1. Geneva: Author. Retrieved November 28, 2011, from http://www.ifad.org/evaluation/guide/annexb/b.htm#b_1

Causal Loop Diagrams

Maani, K. E., & Cavan, R. Y. (2002). *Systems thinking and modeling: Understanding change and*

complexity. Auckland, NZ: Prentice Hall/Pearson Education.

Pegasus Communications. (2004). *Causal loop diagrams.* Retrieved December 10, 2011, from http://www.pegasuscom.com/cld.html

Williams, R., & Imam, I. (2007). *Systems concepts in evaluation: An expert anthology.* Point Reyes, CA: EdgePress.

Mind Mapping & Visualization

Consultative Group on International Agricultural Research. (2011). *ICT-KM project: Knowledge sharing toolkit* (includes a mindmapping wiki). Retrieved December 12, 2011, from http://www.kstoolkit.org/home

Delightability. (2011). *Big idea tool kit: 7 visual thinking tools for innovative teams to do their best work.* Retrieved December 12, 2011, from http://www.thebigideatoolkit.com/?p=1075 Prezi. (2011). *Mind mapping & presentation software.* Retrieved December 12, 2011, from http://prezi.com/

Note

1. The David and Lucile Packard Foundation is a tax-exempt charitable organization qualified under section 501(c)(3) and classified as a private foundation under section 509(a) of the Internal Revenue Code. Packard Foundation funds may be used to support some, but not all, of the activities of grantees and others described in this logic model. No Packard Foundation funds are used to support or oppose any candidate for election to public office. No Packard Foundation funds are “earmarked” or designated to be used for lobbying or “attempts to influence legislation” (as defined in section 4945(d)(1) of the Internal Revenue Code).

7

Exploring Archetypes

This chapter suggests readers consider the potent value archetypes can give to their own models. We understand archetypes as a tested, general template for an intervention, program, or strategy. They are generic versions that can advance your own models. Often, with modification, they can inform your planning, evaluation, communication, or other needs. Archetypes can also provoke new thinking and provide a quality check that improves ideas.

LEARNER OBJECTIVES

- Describe the rationale for evidence-based models
- Define a logic model archetype
- Specify contributions an archetype can make to modeling
- Name the limitations of archetypes

Why squander the knowledge we have about what works? Many important services, products, and programs have been built on the good efforts of others. For example, while automakers may change body styles year to year, they repeat great headlight designs that are cost efficient, aesthetic, and effective. Software programmers do this, too. Once a particular code path is created that works well, it is often repeated as part of a subsequent routine. These examples demonstrate good use of prior knowledge with a highly positive effort-to-value (efficiency) and -impact (effectiveness) ratio. Theory of change and program logic models can garner some of these benefits by using archetypes. They offer a substantive contrast to trial and error. Because many archetypes are evidence based and have been tested, they can help jumpstart your modeling.

The Blank Page Challenge

As you start to think about how your planned work and intended results might look on paper, a blank page sometimes feels like a steep challenge. In many cases, there is no need to start with a blank page. Archetypes are a great remedy for “model block” or “display paralysis.” In addition to getting some shapes and words on paper, they can also contribute significantly to model quality because they are more likely to secure intended results.

We define archetypes as commonly used templates that offer simple evidence-based guides for action. An archetype often looks and feels just like any theory of change or a program logic model. The qualification is that all or some of the elements, relationships, and outcomes specified in the archetype are tested and proven. They are grounded in research and/or evaluation that specifically confirm the validity of the connections as drawn. We touched on the concept behind archetypes in earlier chapters when we emphasized the importance of grounding your models in evidence. In this chapter, we take the next step by sharing some examples.

It is very likely that models relevant to your needs are already drawn and available on the Internet, in books, or in journal articles. You might pick simple archetypes from several bodies of research and combine them to create an initial version of a theory of change or program logic model. Or you might find a model and use it in its entirety with only some minor changes. Archetypes can reflect any number of broad strategies-to-results pathways and illustrate the detailed connections between activities and outcomes. They can display common program strategies like collaboration, communication, advocacy, professional development, sustainability, and a whole range of other topics. They can be general or discipline specific (e.g., health, education, public administration, environment).

For example, some of the models in Chapter 6, although the narrative focuses on display, are built on archetypes. The Packard Preschool models rely on evidence for their program efforts. Rather than invent a policy change initiative totally from scratch, the Packard Foundation used Kingdon’s policy stream theory and the body of research behind it as a theory of change to guide their program design and its evaluation. Similarly, the New York Healthy Weight model relies on evidence that informs

both nutrition and exercise as proven weight-management interventions. Although in this chapter we encourage readers to build on the evidence-based models already available, you may find the need to delve deeper into the literature to identify the relevant evidence base for models you generate.

Archetypes can provide a framework for content that is revised to suit your distinct context or used “as is” because they are already diagrams that illustrate strategies likely to work. The features of a logic model archetype vary just as theory of change and program models do (see Chapter 1). Evaluation logic models can also be archetypes. These models typically provide specific measurement guidance. They specify outcomes as well as indicators and, often, data collection tools that offer optimal points for evaluative inquiry, whether formative or summative.

Archetypes and Learning

In Chapter 6, we offered diversity in display as a rich field for learning. This chapter suggests archetypes have considerable value, too. An archetype might be thought of as a generic formula or as a recipe. For instance, a tried-and-true recipe for banana bread passed on through generations always delivers great-tasting banana bread. Carefully following the inputs and directions of a particular recipe that is well proven or improved through frequent use can provide sure results. Archetypes are like recipes in that they rely on a measurable, proven set of ingredients. Execution of the recipe means results are predictable. Someone just learning to cook might choose to follow a recipe exactly but later might experiment more with the ingredients or the sequence of steps.

As a jumpstart for your work, archetypes fill a blank page and identify the elements and conditions that might be modified. Building on the banana bread example, as most bakers know, recipes for banana bread can vary slightly depending on both conditions and preferences. Any given recipe for banana bread may require a different temperature depending on the pan size or material or oven type. And, if you like nuts or chocolate, those additions might be positive innovations, too. Sometimes dietary restrictions or allergies require substitutions. While it is possible to have minor distinctions reflecting skills or preferences, a recipe identifies inputs and activities to secure the intended result. Likewise, it is possible to use experience and evidence to improve a recipe. These variations in the recipe are still results focused; they just respond to different palates. In real-world execution, a program or change-effort recipe can vary because of many internal or external conditions (e.g., budget constraints, culture, policy, skills, and staff).

Recipes for Change

Earlier, we described knowledge and assumptions as important quality features for logic models. Similarly, archetypes rely on theory first and are then substantiated by research and evaluation. They use evidence as the basis for their recipe. Like reliable recipes, archetypes can support replication and, in that sense, they can be used prescriptively. Alternatively, they can also support innovation by providing a grounded but initial platform to generate new ideas. And archetypes offer greater chances of success under a variety of conditions because of this reliability. Building on prior evidence-based examples with carefully selected adaptations or revisions is a smart way to tackle modeling.

One area where archetypes could be particularly helpful is in planning for and evaluating the vast number of programs and efforts that target the actions of individuals and organizations. For example, there are many theories of how and why individuals change their behavior that program staff and evaluators often use (e.g., Stretcher and Rosenstock’s health belief model, Itzak’s theory of planned

behavior, or Prochaska and DiClemente's stages and processes of self-change; see Supplemental Readings at the end of the chapter). Although these theories are not described in detail here, they may be helpful to your work and do inform some of the examples we have selected for this chapter and those in Chapter 6. They are just a few pieces of relevant research that can be useful in identifying, creating, or using archetypes aimed at planning for or evaluating behavior change.

We often use the early work of Kay Rockwell and Claude Bennett as a starting point to build models that include individual behavior change as outcomes. Their approach, now widely known as TOP (targeting outcomes of programs), focuses on describing the sequence of outcomes in planning, implementing, and evaluating programs. Notably, TOP models generally show how individual change occurs. Although this work began more than 30 years ago, it endures as highly relevant to the newer practice of logic modeling in that it articulated specific steps in change that help us focus on those aspects of a program most closely related to effectiveness—whether the change effort is among individuals, groups, or organizations. We see threads of Rockwell and Bennett's work in many of the models used as examples here and those we see in our practice. It was using their simple recipe to inform our models that gave rise to our thinking that similar archetypes could be found or created for other content. Theoretical concepts, determined and tested through research, can inform the content in your models.

Value of Archetypes

Archetypes, just like recipes, are important because if the same model is repeatedly implemented, it can be used as a platform to inform learning about how to improve implementation and results. This means we can work toward precision so that when replication of results is sought, it is a real possibility. Further, we can also "stand on the shoulders" of the good work done before us and have it inform where we might improve a process or result. In effect, this serves the development of knowledge. It advances our understanding of what works under what conditions. Several mature fields, specifically health and education, have archetypes that practitioners rely on because of their proven, well-established content. It is more likely, in some situations, to get the results sought by using an archetype already developed and tested in contrast to starting from scratch.

In general, the archetype examples selected for this chapter serve either individual/group change or communities and systems change. Archetypes can contribute to both program planning and evaluation as they generate new learning about intentional variations in their content or execution. When program efforts require shared elements or evaluation needs to aggregate impact, archetypes can provide an umbrella or framework for design. Often, evaluation archetypes are linked to valid and reliable measures.

More Critical Thinking

Archetypes can provide substantial benefits because they are founded on evidence and prior research. They can launch your own models by capitalizing on prior testing and experience. Even so, archetypes are no substitute for critical thinking that generates appropriate revisions. Critical thinking is a key contributor to logic models because it employs intellectual criteria like clarity, credibility, relevance, and significance. It helps models (and consequently what is modeled) because it requires analysis and evaluation, and it restructures thought patterns. We believe that it is important to avoid the risk of actions based on flawed or false premises. Critical thinking helps form judgments that reconcile evidence with good sense and innovation. Archetypes are valuable to be aware of and use,

but it is still important to employ some of the quality steps we have suggested previously. We provide extensive description of processes that engage critical thinking in Chapter 4. Critical thinking can contribute substantially to strategy development. In addition to using archetypes, it's a good idea to employ research literature and field practice in your models. It's important to produce a model that's plausible, better if it's feasible, and best if it's strategic.

Selected Archetype Examples

The following archetype examples are drawn from a range of disciplines: social science, health care, communication, management, and government. Some aim at individual and group change, while others tackle communities and systems. We think they offer an interesting view of how experts and stakeholders describe their recipes for change. In each example, we introduce the model, and then we provide some context about its use. References for each example are also included. The health promotion and organizational effectiveness examples include several models we consider archetypes.

We hope that individually and together, these archetypes are useful for solving your blank-page paralysis. More important, they represent the rich possibilities of existing models and the valuable contributions archetypes can make to your efforts. As in prior chapters, a resources section after the examples can be used to support additional learning. For this chapter, it includes a short compendium of related text, journal, and Internet materials that is organized by topic and is placed after the reflection and exercises.

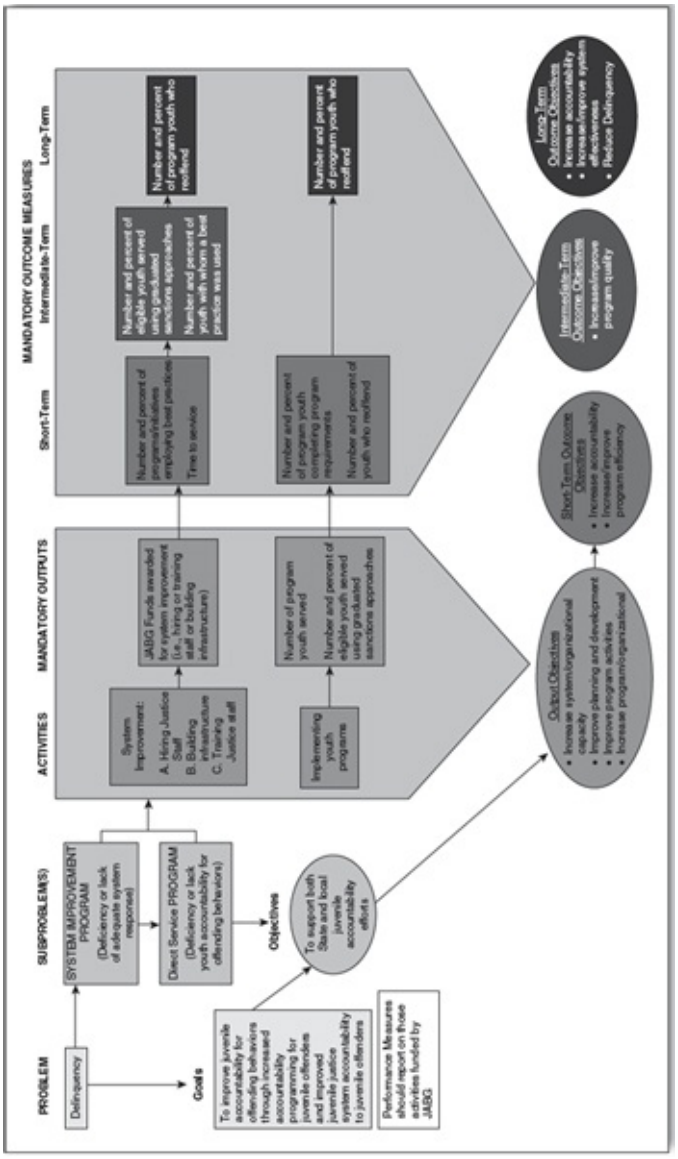
Example 1: Federal Block Grants

Juvenile Justice and Delinquency Prevention

Reading from left to right, the Juvenile Accountability Block Grant (JABG) Logic Model (Figure 7.1) begins on the far left with problem and subproblem(s) columns. This model illustrates an initiative targeting the improvement of system and program accountability as well as performance improvement as solutions to the delinquency problem.

The top right side of the model shows how the federal program wants its grantees to describe and measure types of efforts at the system and program levels as well as how to quantify results (mandatory rectangles within large downward-pointing arrows). At the system level, the JABG model shows the relationship between types of system improvements (staff, infrastructure, and training) and grant funds invested with number of programs, length of service, and the use of graduated sanctions and best practices. These are noted as being of particular importance in influencing rates of participating youth who reoffend. At the direct service program level, the model shows the relationship between the implementation of youth programs, the number of youth served using graduated sanctions, completion of program requirements, and the rate at which participating youth repeat offending.

Figure 7.1 Juvenile Accountability Block Grant Logic Model



Source: U.S. Office of Juvenile Justice and Delinquency Prevention, 1997.

It also specifies an objectives pathway (ovals, bottom right). Although this is not frequently seen in models, it serves the purpose here to show how the mandated output and outcomes measures provide evidence of improved programs and systems in terms of specific and measurable accomplishments such as capacities, accountability, efficiency, quality, and effectiveness.

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) competitively distributes federal funding to community and regional nonprofit organizations. In OJJDP grant solicitations, logic models are required as a key element of funding proposals. They are consistent with both the Government Performance and Results Act of 1993 (GPRA) and the Program Assessment Rating Tool (PART). While the models help explain program design, they are specifically intended to help applicants select relevant performance measures. The OJJDP encourages grant applicants to use its designated generic logic model as a template to create a logic model for applicants' customized programs. OJJDP staff encourage the use of the template to ensure the applicants' goals correspond to those identified at OJJDP, determine the program and purpose areas for appropriate assignment, and select indicators that will show required performance data. In all, this office has more than two dozen programs with logic models and associated indicators for grantees to use.

The model in Figure 7.1 is tied to specific performance measures named in the block grants program. They include but are not limited to graduated sanctions, training, juvenile records system, information sharing, accountability, risk and needs assessment, school safety, restorative justice,

probation, and others. The Juvenile Accountability Block Grant (JABC) model and its clear performance measures are aligned with the specifications laid out in the OJJDP generic logic model template. In this way, the OJJDP offers grantees some important tools that support effectiveness. While not every program model proposal will be the same, they must include elements of a change prescription that secures specified outcomes all aimed at reducing delinquency and improving juvenile justice.

If content specific to juvenile justice were removed, this model could be a generic recipe for a grant proposal on any subject or change agenda. The elements of the model (e.g., outcomes, goals, objectives, activities, and outputs) are common features of any intervention program. It is especially helpful that the model encourages identification of both the problem and the subproblems to be addressed through appropriate activities. If you were planning, managing, or evaluating programs in this content area, the supplementary materials and more detailed logic models (specific to particular programs) provided on the OJJDP website would help focus and stimulate your thinking.

References

For additional information and more resources about the OJJDP work with logic models, see

Logic models. (n.d.). Retrieved December 12, 2011, from http://www.ojjdp.gov/grantees/pm/logic_models.html

The OJJDP generic logic model. (n.d.). Retrieved December 12, 2011, from http://www.ojjdp.gov/grantees/pm/generic_logic_model.pdf

Performance measures. (n.d.). Retrieved December 12, 2011, from http://www.ojjdp.gov/grantees/pm/grantees.html

Logic models and performance measures for title V formula grants. (n.d.). Retrieved December 12, 2011, from https://www.nttac.org/index.cfm?event=titlev

Example 2: Education Readiness and Success

Pathways Mapping Initiative (PMI)

This model (Figure 7.2, called a “map” by its authors) describes the most critical actions and goals that are proved to contribute to student success in the third grade. This model is read both left to right and top to bottom. Goals, specified in a numbered sequence from top to bottom, are cited for individual children in the context of a community. Each of the six goals contributes to third-grade success (far right). Several evidence-based categories of actions for each goal are also specified. Indicators of third-grade success are listed. This model shows the comprehensive systems view from which programs or groups of programs might approach their work.

Assembling the best information from a wide array of resources across diverse systems and disciplines is central to the approach used in the Pathways Mapping Initiative (PMI). The PMI is an initiative of the Project on Effective Interventions at Harvard University, funded by the Annie E. Casey and W. K. Kellogg Foundations. The PMI tackles several concerns and what works in America’s families and neighborhoods. The PMI has assembled a broad and deep knowledge pool on selected issues. Through a process they call “mental mapping,” the PMI “systematically applies reasonable

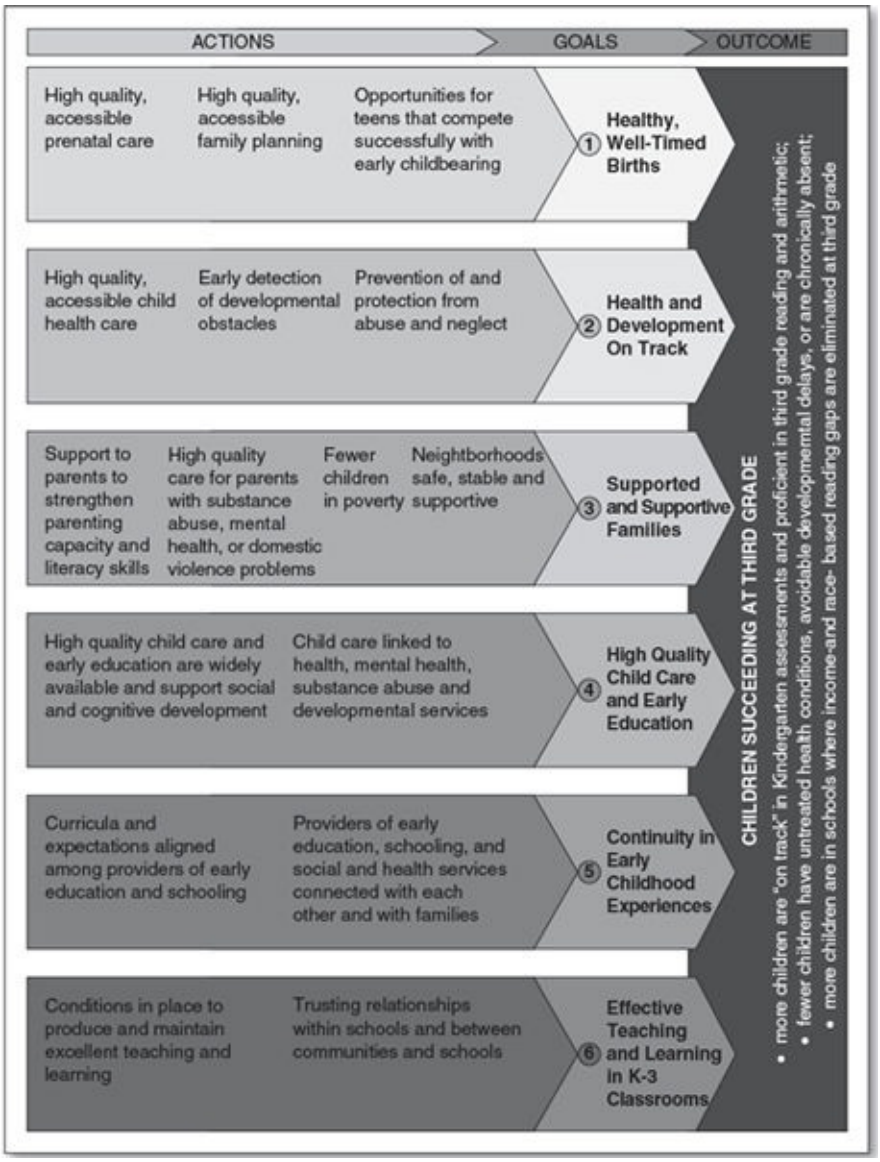
judgments and plausible interpretations" to evidence culled from experience, theory, and evaluation findings. It is a knowledge management project aimed at effectiveness.

The Ready for School and Succeeding at Third Grade map covers content about school readiness. Each component is discussed and detail is provided on the actions with examples, indicators of progress, elements of effective implementation, rationale, and research evidence. This and other PMI models are very comprehensive because of the quantity and quality of materials behind them. It relies on knowledge to inform elements, assemble the general recipe, and direct users to viable options that reflect their context to complete a customized model. At the PMI website, click-through content for each area of the map is accessible so that users can create a map that reflects their own community conditions and circumstances.

Few other archetypes have this support in the breadth and quality of content for each feature. This, as well as the rationale, indicators, and attributes, is also distinct and substantially enhances the archetypes' value. Consistent with logic models, the Ready for School map has tremendous utility for many tasks. It can help with assessment or planning for a school-improvement effort, inform proposals, and identify examples of effective strategies.

An allied effort that uses elements of the PMI archetype can be seen in the Texas Early Learning Council theory of change model (see Figure 7.3). In 2009, the Texas governor created a 19-member Early Learning Advisory Council to improve school readiness in Texas through targeted strategies that focus in four priority areas:

Figure 7.2 Ready for School and Succeeding at Third Grade Theory of Change



Source: U.S. Pathways Mapping Initiative, 2007.

- Parental outreach and communications
- Early childhood workforce and professional development
- Collaborations and standards
- Data systems and quality rating and improvement systems

These priorities correspond to the PMI goal areas 3 and 5, Supported and Supportive Families and Continuity in Early Childhood Experiences. To improve key aspects of early care and education in Texas, the council will spend nearly $11.5 million (over 3 years) in American Recovery and Reinvestment Act (ARRA) funds. Like similar structures and efforts in other states, the Texas Early Learning Council is responsive to the requirements of the Improving Head Start for School Readiness Act of 2007.

The Texas Council plans exceed expectations of the 2007 Act. Subcommittees were formed to address the priorities areas that are driven by stated needs. On specific tasks and goals, subcommittees will partner with key stakeholder groups, national experts, and consultants to ensure high-quality and relevant products are created.

Through council, staff, and contractor efforts, the Texas Early Learning Council will make key strategic improvements to the Texas early care and education multisector system. The council will post more than 20 requests for proposals (RFPs) to accomplish a significant portion of the goals

identified in the model. Note the reliance on information exchange, reporting, and needs assessment, which can assist relevance in the council's actions.

References

In addition to school readiness, PMI offers pathway maps and other materials for successful young adulthood, family economic success, and the prevention of child abuse and neglect.

For additional information and more resources about the PMI, see: http://www.cssp.org/publications/documents/pathways-to-outcomes (Retrieved December 12, 2011) as well as:

Schorr, L. B., & Marchand, V. (2007). *Pathway to children ready for school and succeeding at third grade*. Washington, DC: Pathways Mapping Initiative, Project on Effective Intervention. Retrieved April 24, 2012, from http://www.familyresourcecenters.net/assets/library/109_3rdgradepathway81507.pdf

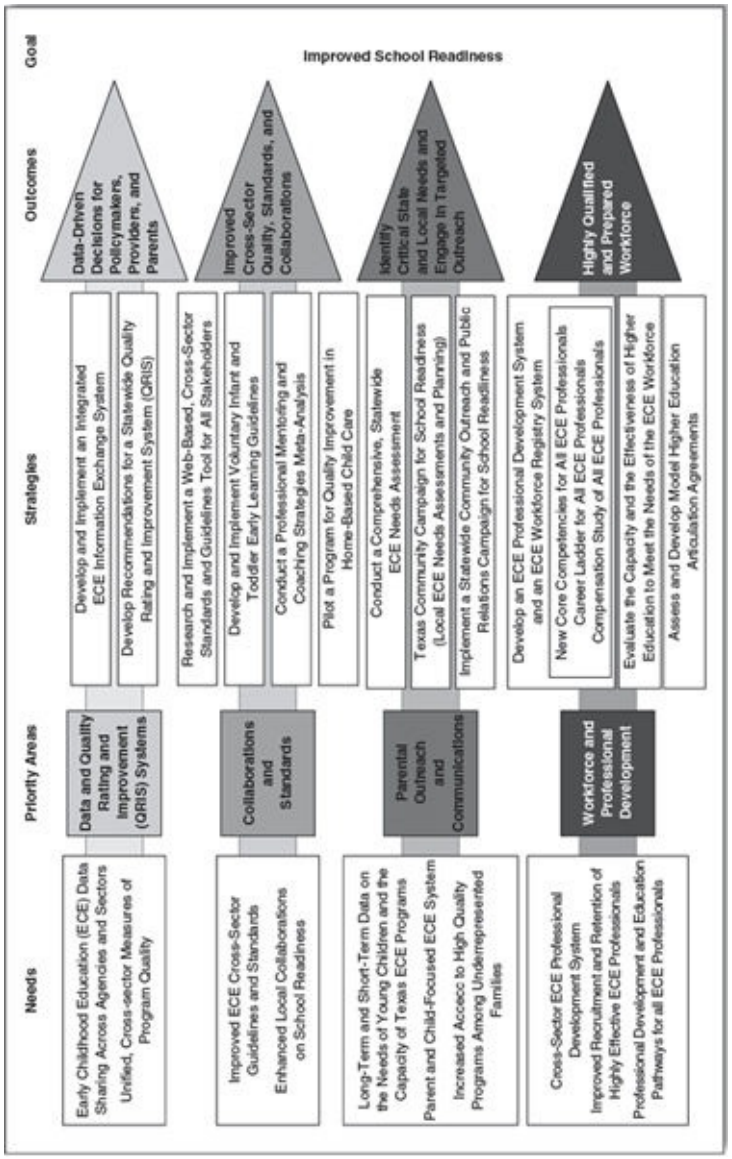
Texas Early Learning Council. (2011). *Infant and toddler early learning guidelines*. Retrieved December 12, 2001, from http://earlylearningtexas.org/umbraco/default.aspx

Example 3: Communications

Human Behavior Change

Frequently, program, project, and initiatives aimed at human behavior change rely heavily on communications or a special discipline known as social marketing. In effect, very few efforts can avoid having a communications and marketing strategy if there's an expectation that people will adapt in a particular way or adopt a new practice. This model is a generic archetype we created that builds on Prochaska's transtheoretical model (TTM). TTM has four stages: precontemplation, contemplation, preparation, and action (see Figure 7.4).

Figure 7.3 Texas Early Learning Council Theory of Change



Source: Texas Early Learning Council (2011). Infant and Toddler Early Learning Guidelines.

This model archetype also builds on social marketing literature. Social marketing is an application of communication principles and practices for a social good or benefit. For example, health promotion campaigns began in Australia nearly 30 years ago aimed at reducing tobacco use and increasing the use of sun-block to reduce skin cancer. Social marketing is widely used in the United States to reduce drunk driving and affect teen pregnancy, too.

Note that the model considers two targets for the planned work: “prospects” and “participants.” This dichotomy separates those that *may* engage with messages and materials and that *do* engage. For any change to occur (adoption/adaptation), it is essential that a prospect become a participant. Participants engage in action by sharing, applying, and then displaying change in skills and behavior. The model shows the process of how a prospect becomes a participant and how participants, in turn, may elect to recruit new prospects. Reading from the left side and starting with prospects, the model articulates a precondition of the subsequent steps. It is a perceived need or utility. This vital step can stop any forward progression. A savvy communicator will be sure that any message and medium delivered to a prospect can resonate with the targets’ relative perceptions. Moving to the right, the acquisition stage includes three steps: request/participate, read/hear/interact, and understand. The underlying theory is that prospects need more than information to take action. Sending a message does not equal understanding or action on it. But *if* there’s interaction and understanding, then it’s possible to affect an attitude and knowledge. New or different awareness and capacity precede action.

In effect, this model explicates readiness for change and receipt of information that may or may not, eventually, affect adoption/adaptation. It can be used as a "script" when in the design and planning stages or to evaluate a program with substantial communication processes.

References

Itzak, A. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50,* 179–211.

Mackenzie-Mohr, D. (2011). *Fostering sustainable behavior: An introduction to community-based social marketing.* Gabriola Island, British Columbia, Canada: New Society Publishers.

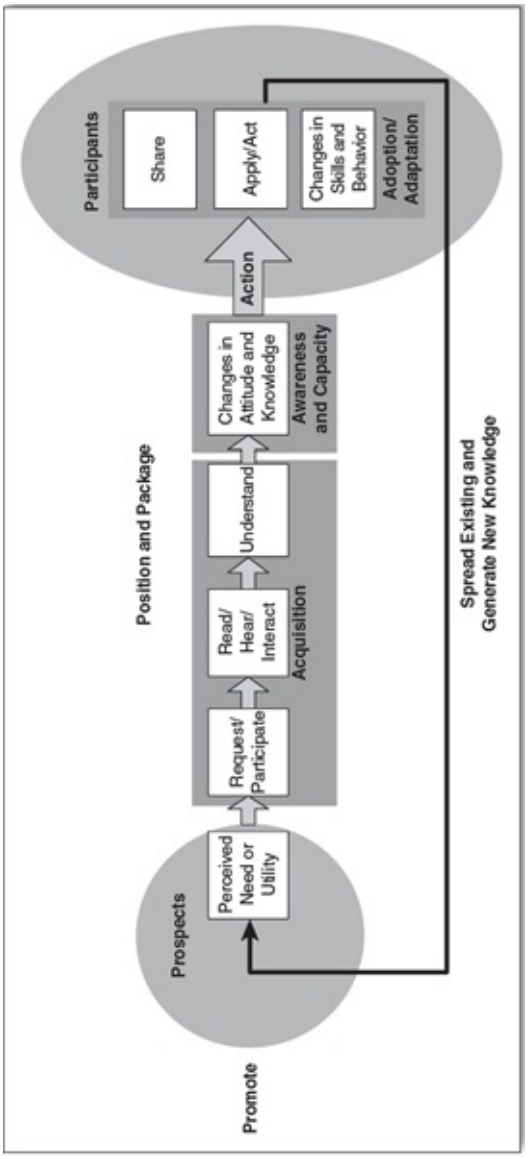
Maio, G., & Haddock, G. (2010). *The psychology of attitudes and attitude change.* Thousand Oaks, CA: Sage.

Perloff, R. M. (2010). *The dynamics of persuasion: Communication and attitudes in the twenty-first century.* New York: Routledge.

Prochaska, J. O., Norcross, J. C., & DiClemente, C. C. (1994). *Changing for good: The revolutionary program that explains the six stages of change and teaches you how to free yourself from bad habits.* New York: W. Morrow.

Weinreich, N. K. (2011). *Hands-on social marketing: A step-by-step guide to designing change for good.* Thousand Oaks, CA: Sage.

Figure 7.4 Communication, Adoption, and Adaptation Theory of Change



Source: Phillips Wyatt Knowlton, Inc., 2010.

Example 4: School Improvement

Family and Parent Engagement

Aimed at student success, for more than 15 years, the National Network of Partnership Schools (NNPS) has been an important project of the Center on School, Family and Community Partnerships at Johns Hopkins University. Led by Dr. Joyce Epstein, the Center guides district leaders to develop programs of family involvement and community connections. It is a leading resource for knowledge and the foundation of many other efforts in family involvement and parent engagement. Epstein's work pioneered a continuum that offers parents a range of participation from homework to systems change. Her general theory of change relies on school and district leadership that influences what parents do on behalf of children and the associated impact of those actions on student success. Figure 7.5 provides a display of this thinking and the associated research.

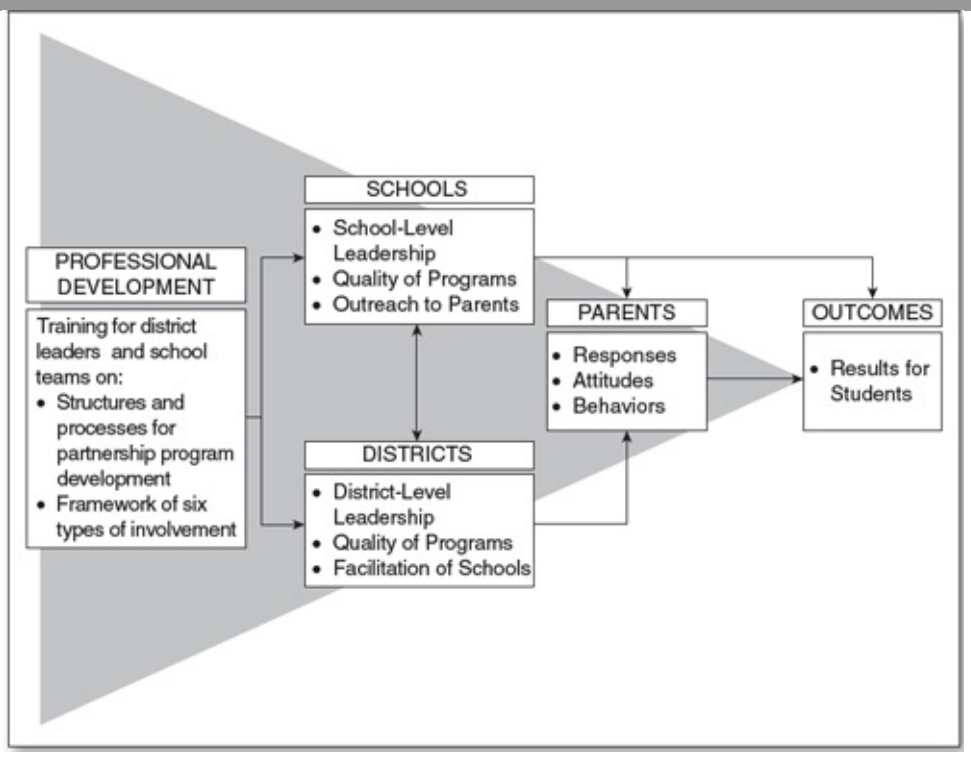
The NNPS website provides extensive resources about the programmatic research that continues to build this field of study. Research with early, basic studies, began in 1981 and grew over time as learning about the nature of "nested leadership" occurred. This multilevel leadership model for

school, family, and community partnerships is composed of school, district, state, and federal levels. To date, schools and districts have shown the most active interest in family and community involvement. Epstein's framework for family and community participation specifies six types of activities: parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community. At the school level, she recommends an action team for partnerships composed of teachers, parents, administrators, and other stakeholders who work together so that all parents are welcome and involved in their children's education.

The Harvard Family Research Project (HFRP), as well as many other organizations, has built program models that articulate family/parent engagement in schools nationwide. All of these university efforts are based on research, similar to that illustrated in the Epstein model, which indicates children are more likely to be successful in school if parents and families are involved. HFRP models often cite four goals for the work of family engagement that resonate with those illustrated in the Epstein archetype. They include better student preparation for postsecondary success, family members who are wise consumers and active partners with children, transformed schools, and districts with intentional family engagement.

Research conducted by HFRP substantiates the value of the family and parent engagement archetype. The effects of more frequent and higher-quality interactions between schools and parents at all levels include greater trust and respect, increased social capital for children, and a school community more supportive of success for every child. In addition, the academic advantage for children whose parents are involved in their schooling averages across a number of studies about .5 standard deviation for overall educational outcomes, grades, and academic achievement.

Figure 7.5 School, Family, and Community Partnerships Theory of Change



Source: Johns Hopkins University, 2011.

References

Epstein, J. L. (2011). *School, family, and community partnerships: Preparing educators and improving*

schools (2nd ed.). Boulder CO: Westview Press.

Epstein, J. L., et al. (2009). *School, family and community partnerships: Your handbook for action* (3rd ed.). Thousand Oaks, CA: Corwin.

National Network of Partnership Schools. (2010). *The Center on School, Family and Community Partnerships*. Baltimore, MD: Johns Hopkins University. Retrieved December 11, 2011, from http://www.partnershipschools.org

For additional information and more resources about the HFRP Family Involvement Project (FIP) and its research, see

Coffman, J. (1999). *Learning from logic models: An example of a family/school partnership program* (Reaching Results, January 1999). Retrieved December 11, 2011, from http://www.hfrp.org/publications-resources/browse-our-publications/learning-from-logic-models-an-example-of-a-family-school-partnership-program

Harvard Family Research Project. (2011). *Bibliography of family involvement research published in 2010*. Retrieved January 6, 2012, from http://www.hfrp.org/publications-resources/publications-series/family-involvement-bibliographies/bibliography-of-family-involve ment-research-published-in-2010

Harvard Family Research Project. (2011). *Family involvement*. Retrieved December 11, 2011, from http://www.hfrp.org/family-involvement

Redding, S., Langdon, J., Meyer, J., & Sheley, P. (2005). *The effects of comprehensive parent engagement on student learning outcomes*. Cambridge, MA: Harvard Family Research Project. Retrieved January 6, 2012, from http://www.hfrp.org/publications-resources/browse-our-publications/the-effects-of-comprehensive-parent-engagement-on-student-learning-outcomes

Example 5: Public Health Research

Injury Control Research Center

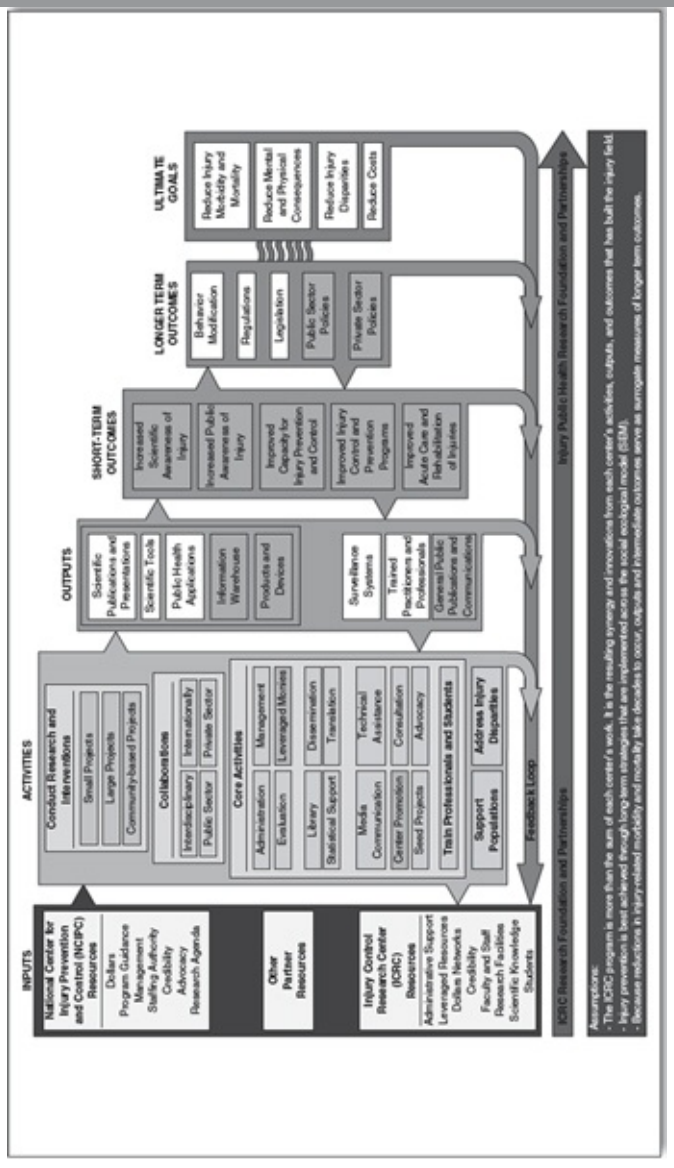
For more than 20 years, the Centers for Disease Control and Prevention has funded injury control research centers to build the research base in the field of injury. Grantees include primarily academic research centers but also some hospitals with a focus on research and training of students, public health professionals, and other researchers. The model shown here relies on the planned work and outcomes of the Injury Control Research Center (ICRC) at the Centers for Disease Control and Prevention. Both program and evaluation logic models were developed by Center staff (Yee and Kress), then vetted among workgroups, evaluators, and other stakeholders.

An early model documented the primary inputs, activities, outputs, and outcomes as described in the funding opportunity announcements (FOAs) over a 7-year period beginning in 2000. The second model (Figure 7.6) illustrates the elements included in the evaluation of the ICRC portfolio (participating centers). This set of models, like that shown for Juvenile Justice in Example 1, is of interest because together they show how funder intent (what work/activities will be funded) and

accountability (performance expectations for those centers receiving funds) for a group of projects can be addressed flexibly when working toward synergy and innovation. Although these models are specific to the injury field, in principle, they could be adapted to describe how a request for proposals for a large body of work could be used to frame the criteria for grantee selection. They also highlight one way to develop the evaluation and metrics needed to capture evidence of return on investment right from the start or at some later point. Portfolio-level evaluation is frequently used by major U.S. foundations and the U.S. government to identify common measurement strategies across a group of projects operating in different contexts but targeting similar outcomes and impact. When a common measurement framework is used, it is possible to aggregate or "roll up" results from individual projects to reflect on the progress made by the whole.

Both logic models use columns to depict different domains. Different-colored boxes are used around a group of activities, outputs, and outcomes. Each item in the logic models can be considered its own domain. As one moves out from individual items, the surrounding box indicates the level of relatedness between items. Activities labeled as "Core Activities" are within their own domain, and the Core Activity domain is within the Activity domain. The overarching domains are then expected to influence subdomains.

Figure 7.6 Injury Control Research Center Portfolio Evaluation Logic Model



Source: Centers for Disease Control and Prevention, Injury Control Research Center, 2009.

CDC; NCIPC: Office of the ADS. Findings from the injury control research centers portfolio evaluation. Atlanta, GA: U.S. Department of Health and Human Services, 2009.

Arrows depict influence and interaction. The heavy, black arrows indicate interactions that are known to exist and have measures. For example, it is relatively easy to model the interaction between Research and Core Activities inside the Activities domain. Smaller arrows indicate interactions that are known to exist, but the authors are less certain of the pathways and measures. Lighter-colored arrows between domains indicate interactions in which there is still active learning about movement from one domain to the next.

Evaluation work was conducted over a 2-year period from 2007 to 2009. As a review of a portfolio, the evaluation necessarily illustrates the actual activities of the grantees. It expands on the first funding opportunity model and articulates greater detail in the outputs and specifies short-term, long-term, and ultimate goals. The three squiggly lines between Longer-Term Outcomes and Ultimate Goals represent the black box of translation.

Since program benchmarks had not been identified, the evaluation model focused on possible outputs and outcomes over the last 20 years of the program. This approach allowed the evaluation team to "back into" identifying contributions of the program to injury research and practice. One recommendation the portfolio evaluation generated was for CDC to work with the ICRCs to develop specific indicators for the program. Note that assumptions that influenced and guided construction of the models and the evaluation process are specified below each model. This contrasts with the traditional method of showing context variables in a logic model. The coauthors indicate this specification was more consistent with the mixed-method approach used in the portfolio evaluation.

These models were built after review of progress reports from injury control grantees as well as literature that indicates how research activities move a field from research to practice. Then, key stakeholders checked the embedded logic and assumptions.

References

For additional information, contact Sue Lin Yee and Howard Kress at the Centers for Disease Control and Prevention–National Center for Injury Prevention and Control.

Centers for Disease Control and Prevention. (2010). *Findings from the Injury Control Research Center portfolio evaluation.* Atlanta, GA: U.S. Department of Health and Human Services.

Dahlberg, L. L., & Krug, E. G. (2002). Violence—a global public health problem. In E. Krug, L. L. Dahlberg, J. A. Mercy, A. B. Zwi, & R. Lozano (Eds.), *World report on violence and health* (pp. 1–56). Geneva, Switzerland: World Health Organization.

IN SUMMARY

As tested, general templates for action, archetypes have great potential for informing your work. They can test the quality of your original efforts and generate new thinking. Archetypes are evidence based, so they can reliably jumpstart your modeling. Archetypes can be thought of as recipes. They can contribute to planning, managing, and evaluation. They are improved upon by your own knowledge and experience because of your unique context and conditions. The breadth of content in an archetype varies. They look different and are often not referred to specifically as theories of change or logic models. What is important is that they contain the information distilled from an

evidence base needed to illustrate the basic concepts in theories of change or program logic models. Some represent a single strategy, while others cover complex projects. This chapter provided examples of archetypal theory of change and program logic models.

LEARNING RESOURCES

Reflection

1. In the absence of an archetype, what elements of knowledge can help you jumpstart creation of a logic model?
2. Does your field or discipline rely on any archetypes? If so, are some better than others? Why?
3. Name any challenges you might experience with using an archetype. Why could or would an archetype fail?

Exercises

1. Go to the Juvenile Justice website and prepare a program logic model. Compare and contrast with others who do the same. Was there fidelity to the template? Why? Why not? Select a model and discuss how it might be evaluated.
2. Find or create a description for a health promotion program. Compare it to the evidence-based New York Healthy Weight model (Figure 6.7). What is the same, and what is different?
3. Locate a case study on family and parent engagement. Apply Epstein's model to it. Does the case you located reflect any of the elements on the archetypical model? If not, why not?
4. Locate logic models for collaboration, sustainability, or marketing. Would they qualify as archetypes? Is the research or evidence base readily apparent? How could the one(s) you located be used in your work?

References and Supplemental Readings

For this chapter, additional texts, journals, and Internet resources (when available) are organized relative to the subject matter content of the examples cited. This list is illustrative but not comprehensive. Many more resources exist than are cited here.

Evidence-Based Models

Baruch, G., Fonagy, P., & Robins, D. (2007). *Reaching the hard to reach: Evidence-based funding priorities for intervention and research.* New York: John Wiley.

Center for the Study and Prevention of Violence. (2004). *Blueprints for violence prevention.* Boulder, CO. Retrieved December 11, 2011, from http://colorado.edu/cspv/blueprints/index.html

Coalition for Evidence-based Policy. (2003). *Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide.* Washington, DC: Author. Retrieved

December 11, 2011, from http://www2.ed.gov/rschstat/research/pubs/rigorousevid/index.html

Department of Health and Human Services. (2009). *Identifying and selecting evidence-based interventions: Guidance document for the Strategic Prevention Framework State Incentive Grant Program.* Washington, DC: Substance Abuse and Mental Health Services Administration. Retrieved April 24, 2012, from http://store.samhsa.gov/shin/content//SMA09-4205/SMA09-4205.pdf

Duignan, P. (2004). *Principles of outcome hierarchies: Contribution towards a general analytical framework for outcomes systems (outcomes theory).* A working paper. Retrieved December 11, 2011, from http://www.parkerduignan.com/se/documents/122f.html

Norcross, J. C., Beutler, L. E., & Levant, R. F. (2006). *Evidence-based practices in mental health: Debate and dialogue on the fundamental questions.* Washington, DC: American Psychological Association.

Promising Practices Network on Children, Families and Communities. (2011). *Programs that work.* Retrieved December 11, 2011, from http://www.promisingpractices.net/programs.asp

Proven Models. (2011). *Proven models.* Amsterdam, the Netherlands. Retrieved December 11, 2011, from http://www.provenmodels.com

Rockwell, K., & Bennett, C. (2004). *Targeting outcomes of programs: A hierarchy for targeting outcomes and evaluating their achievement.* Retrieved December 11, 2011, from http://digitalcommons.unl.edu/aglecfacpub/48/

Schorr, L. B., & Farrow, F. (2011). *Expanding the evidence universe: Doing better by knowing more.* New York: Center for the Study of Social Policy. Retrieved January 6, 2012, from http://lisbethschorr.org/doc/ExpandingtheEvidenceUniverseRichmanSymposiumPaper.pdf

8

Action Profiles

This chapter demonstrates the amazing utility and vast application of logic models. It includes model examples with tremendous variation in subject content and display. Generally, these models have enough detail to support design, planning, and management as well as evaluation. In several instances, they supported multiple functions. These “practice profiles” include models about civic engagement, corporate giving, international development, public health, sustainability, human services, and environmental leadership. This chapter displays the versatile functionality of logic models.

LEARNER OBJECTIVES

- Describe the benefits and limitations of logic models in practice
- Identify the rationale for model use in multiple contexts
- Recognize and use concepts introduced in Chapters 1–7
- Show how models display problems and support strategy, evaluation, and learning

Strategy, Evaluation, and Learning

Each of the following seven profiles is an exciting example of how people in diverse roles used models to support the design, development, and communication of important work. As often as models assist with evaluation, they help significantly with strategy and tactics. They can be used to improve and prove services and to provide a vision of intentional, hopeful change. While never perfect or comprehensive, models offer an alternative to long narrative and are easily revised to suit a change in context as well as adaptive management. Models can be vital tools in learning—for individuals, teams, and organizations.

We hope these examples inspire and encourage your work across a range of issues. The profiles include: civic engagement, corporate giving, labor practices in Eastern Europe, asthma management, sustainability, homelessness, and an effort to minimize the destructive influence of paint disposal.

Profile 1: Building Civic Engagement

What exciting invitation for a “civic life” could entice a hip population in a progressive West Coast city?

More than 20 years ago, Seattle Works began as The Benefit Gang, a motivated group of twenty-somethings who formed an organization dedicated to involving their generation in the Seattle community. The citizen-led group believed that people in their twenties desired community engagement but needed alternatives to the service clubs and expensive charity balls attended by their parents. Their leaders understood the importance of giving back and sought means of community participation that matched their lifestyle.

Now broadly known as an influential resource, Seattle Works supports energetic volunteer teams that have generated inventive programs recognized for their impact on the community.

Through volunteer and leadership development opportunities, Seattle Works connects young adults with a range of service options. In turn, these volunteers become more civically engaged and take action in their communities.

Volunteerism and civic engagement research points to participant-driven decision making, relationship building, and a variety of opportunities for participation as viable means to increase participation in community service, philanthropic giving, and community action. Seattle Works’s targeted population reflects a socio-demographic profile that seeks technology-enhanced support and social networking. Seattle Works increases access to information and opportunities, both of which are important factors in developing engagement.

The model reads from left to right and uses bright green labels to cite primary elements. These

include: Opportunities for Engagement, Connections, Learning, Inspiration, Action, Growth, and Goals. The model suggests if opportunities are identified, then connections, learning, inspiration, action, and growth will occur that lead to vital community goals. On the far right, Seattle Works goals are positive changes in volunteerism, philanthropy, leadership, and civic participation. Under the Opportunities for Engagement column, there are five primary sections that could be synonymous with strategies.

Those five include communicating, volunteering, giving, developing leadership, and influencing. Each of these includes specific events, products, or activities. The steps toward the ultimate goals are not linear but do build from the initial connections and learning, and the frequent and recurring involvement is what leads to growth and development. The graphic choice of a "waving flag" (instead of a flat rectangle) was meant to symbolize the fluid nature of people's involvement and the motion of forward progress (see Figure 8.1). The "messiness" in the middle of the model is denoted by white space and curving arrows. This is intentional and is meant to communicate a relative and intimate interpretation of an individual's change process.

This evidence-based theory of change model was developed in a small group that included Seattle Works staff. Through expert facilitation, a draft model was created. Participants indicate the modeling process clarified the unique work and mission of the organization. Subsequently, it was shared with the Seattle Works board for discussion and development. It is used primarily for communications with board members and other stakeholders.

In 2007, Seattle Works members were surveyed to determine the influence of this organization. Findings from that data collection indicate since becoming affiliated with Seattle Works, respondents volunteer with greater frequency than the national average for comparable age groups; demonstrate more civic engagement in political activities, particularly voting rates; and the majority made a financial contribution to a charitable organization at rates considerably higher than the norm for a comparable population. In addition, respondents are more aware of service opportunities, feel they contribute and are connected to their community, and indicate a good fit for their time, skills, and passion.

Seattle Works was honored with a community service award from the Municipal League of King County in 1996, the History Makers in Community Service Award from the Museum of History and Industry in 1997, the YMCA of Greater Seattle's AK Guy Award in 2002, and Seattle Parks & Recreation's Denny Award for Outstanding Volunteer Service in 2005 and was named an Innovation Hub by the HandsOn Network in 2011.

Will is a key assumption for Seattle Works programs. Their efforts rely on an expectation that people are eager to step up as active community participants early in their careers and adult lives. They believe a vibrant Seattle depends on the civic engagement of young adults who, over time, will continue to demonstrate their mettle as volunteers, voters, leaders, and philanthropic investors bringing positive impact to their communities. After more than two decades of operation, Seattle Works remains a highly regarded organization that launches and supports vital civic capital in the Puget Sound.

References

See the Seattle Works website at www.seattleworks.org.

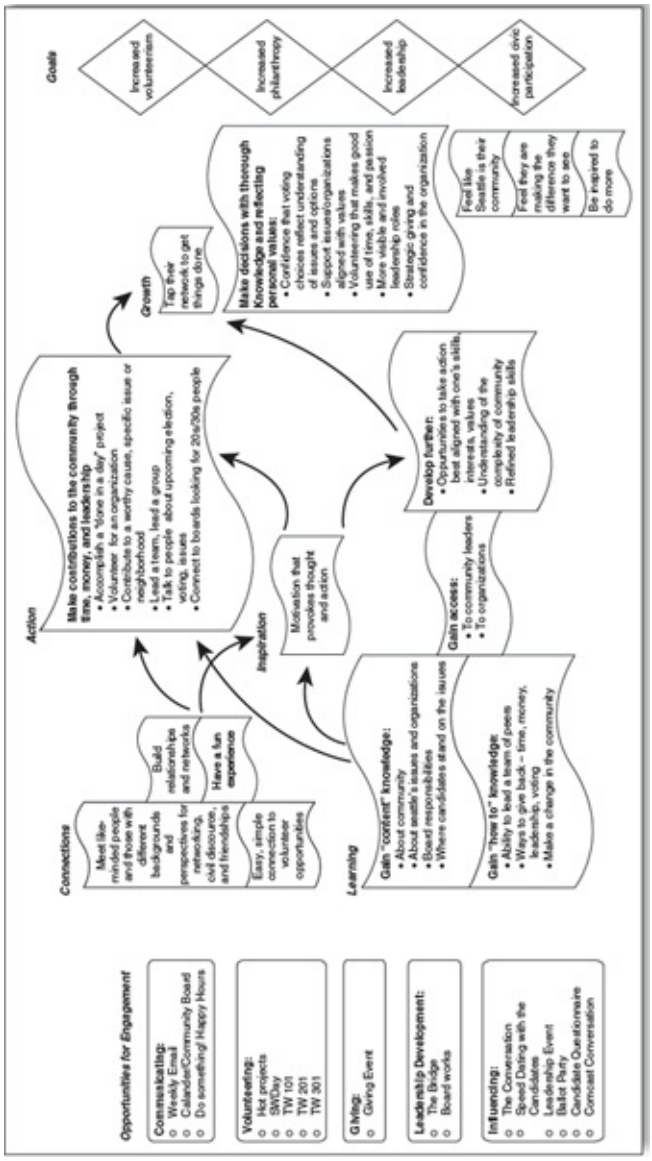
Creation of this model was led by Dawn Smart at Clegg & Associates. Contact her via e-mail at DSmart@cleggassociates.com.

Profile 2: Better Corporate Giving

Childhood hunger in America is a significant challenge. It is likely to increase as our population grows, climates change, and food prices rise.

In households across every state in our nation, *every day,* children face inconsistent access to nutritious and adequate food. They don't know if *or* from where they will get their next meal. Hunger has broad implications for human development: increased susceptibility to illness, cognitive and behavior limitations, and associated impairment of academic achievement. ConAgra Foods, via its charitable giving through the ConAgra Foods Foundation, has chosen this cause and used logic models inside and outside to align its important work. The focus is ending childhood hunger. ConAgra Foods Foundation intentionally chose ending childhood hunger as its primary cause in 2006. The giving program distributes funding nationwide, through a dozen community intervention programs, and through far-reaching brand promotions. In 2011, 2.5 million meals were distributed as a result of a 30-minute news special combined with a company-led consumer campaign that paired products purchased with donations (see www.childhungerendshere.com). Over the past 20 years, ConAgra Foods has led the charge against child hunger in America with donations of more than $50 million and 275 million pounds of food. ConAgra's community involvement platform, Nourish Today, Flourish Tomorrow®, focuses on ending hunger, teaching kids and families about nutrition, and improving access to food.

Figure 8.1 Seattle Works Theory of Change Model



Source: Seattle Works, 2006.

Business and Social Interests

Aligning business and social interests isn't a new idea. It's a vital feature of corporate social responsibility (CSR) and informs corporate giving. ConAgra's active social profile in association with food, specifically childhood hunger, is logical. What is new is how ConAgra and other corporate givers can tackle common work and how a select cause can become a focal point for synergies across an enterprise. ConAgra assembled its primary Washington, D.C., grantees with national reach to sharpen its aggregated aim at ending childhood hunger with shared resources.

They used logic models and modeling to advance their plans and evaluation. ConAgra considered their primary grantees as anchors for a portfolio. Foundation staff wanted to document the current grants in relation to each other, establish indicators that could inform progress monitoring, and aggregate data to gauge outcomes. These vital summaries will allow them a practical, fact-based format to review best bets for additional foundation funding with existing or new grantees.

ConAgra Food's operating principles are simplicity, collaboration, imagination, and accountability. ConAgra employees are also expected to display "leadership attributes," specifically authenticity, vulnerability, and courage. These principles and attributes were key to their foundation's approach with four important nonprofit partners: Feeding America, Share Our Strength, Congressional Hunger Center, and the Food Research and Action Center.

- Feeding America, formerly America's Second Harvest, is a nationwide network of more than 200 local food banks supplying more than 60,000 community-based agencies. This network helps feed 37 million Americans each year.
- Share Our Strength mobilizes individuals and industries to fight hunger and supports nutrition education.
- Congressional Hunger Center focuses on domestic and international antihunger leadership development.
- Food Research Action Center influences public policy and coordinates public–private partnerships to eradicate hunger and under-nutrition.

While all these organizations have active and long roles in antihunger work, their staff had never convened to see or understand the roles each played among key strategies supported through ConAgra funding.

Our firm used highly participatory processes to ensure that multiple perspectives were expressed and reflected in any products. A thorough review of internal and external ConAgra documents along with several phone conferences were essential to inform a preliminary draft of both a theory of change (TOC) and a program logic model. The TOC, shown in Figure 8.2, remained largely unchanged over the project. It simply documented the knowledge-based strategies that would most likely influence childhood hunger.

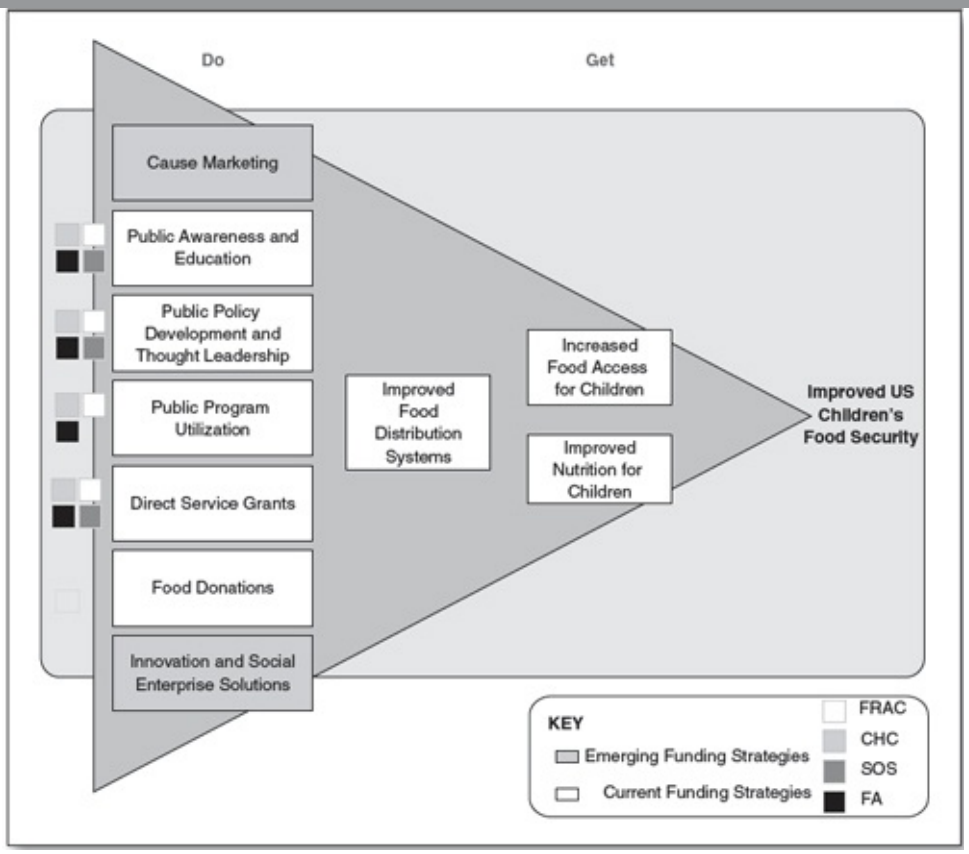
Reducing Childhood Hunger

The ConAgra Foods Foundation theory of change, read from left to right, identifies five strategies for current funding: public awareness and education, public policy and thought leadership, public program utilization, direct service (feeding efforts), and food donations. Emerging funding strategies include cause marketing as well as innovation, replication, and social enterprise solutions. By integrating these strategies where appropriate, the expectations are that the U.S. food distribution systems will both improve nutrition for children and increase food access. These outcomes will ultimately contribute to the planned result of ending childhood hunger. This logic model represents a framework for how planned work can be organized by and with ConAgra Foods Foundation staff, corporate functions, grantees, and other stakeholders. The key code identifies grantees by their contribution to relevant strategy.

Next, grantees were approached about a meeting to articulate their organizations' work and contribute to a collective view that would inform the ConAgra theory of change and program logic models. Prior to this meeting, grantee representatives were asked to consider *only* their work (relative to ConAgra strategies) with internal colleagues. This was designed to ensure that inside discussions defined a shared understanding of responsibilities associated with ConAgra support. Armed with this information, they could then confidently articulate their representative portion *vis-á-vis* peers from other grantee organizations.

Setting the stage for better understanding about models and vibrant participation, we provided stakeholders with a brief and practical introduction to logic models. Using adult learning techniques, we asked organization representatives working in small groups to plan an ideal event by specifying what they'd do and get. Then we deconstructed the activities and primary strategies relative to intended outcome. This easy, kinesthetic activity offered a simple way to practice transferring what they'd learned in the orientation to action steps in co-creating a model. It anchored the essential elements of a logic model. The latter allowed a review of common elements in relation to planned results and introduced a quality continuum from plausible to strategic.

Figure 8.2 ConAgra Foods Foundation Theory of Change Model



Source: ConAgra Foods Foundation, 2011.

In addition to some advance reading, this experiential learning helped prepare participants for a critical review of the preliminary ConAgra logic models. From the outset, the dual challenge was concurrent attention to both program and measurement. To ensure utility and validity, it was critical that both these purposes were considered in the development work. Initial organizing questions included How and where did grantees "see" their organization in the strategies ConAgra had funded to date? and what would be appropriate indicators of progress against childhood hunger in the ConAgra portfolio? The primary strategies and relative activities (program) were tackled first. Through a facilitated process, an exhaustive list of grantee activities was cited and grouped in strategies. It was important to name strategies that held shared meaning. Then, relative to the activities and strategies, their associated outputs and outcomes were identified.

Measuring and Managing

A version of the socially constructed model generated by the DC antihunger grantees and their funder is shown in Figure 8.3. Note, again, the intended result on the far right of this graphic is "improved children's food security." While the version displayed here does not explicate the assumptions for resources/inputs (far left), they can be generally identified as well-managed grantee partners and financial capital, as well as supporting functions like public relations, communications, marketing, product promotions, and others. Because the model needed to support the creation of a monitoring and measurement system, it was practical to identify reasonable outputs and related short-term outcomes.

In this model (see Figure 8.3), the impacts (far right) are likely to occur if the long-term outcomes do. In this way, a dependent chain of "if–then" steps is projected from the cited strategies (at the far

left). The model is not a substitute for action planning that would detail by which grantee, when, with whom, and how (tactically) each strategy plays out over time. But it does provide a high-level road map to specify what information will be gathered and what indicators will suggest progress. At a point in time, this anti-hunger portfolio-level model reflects the aggregate investment and associated metrics for selected ConAgra grantees.

Modeling, the process of creating multiple versions of a display, is generative. Additions and changes to models are crucial as they adapt to capture knowledge. While this case “backed into” a model as documentation from existing plans and work, more often, modeling happens at the design phase. Modeling adds tremendous value in an initial (and ongoing) convening of multiple stakeholders to launch, manage, and evaluate projects, programs, or change work.

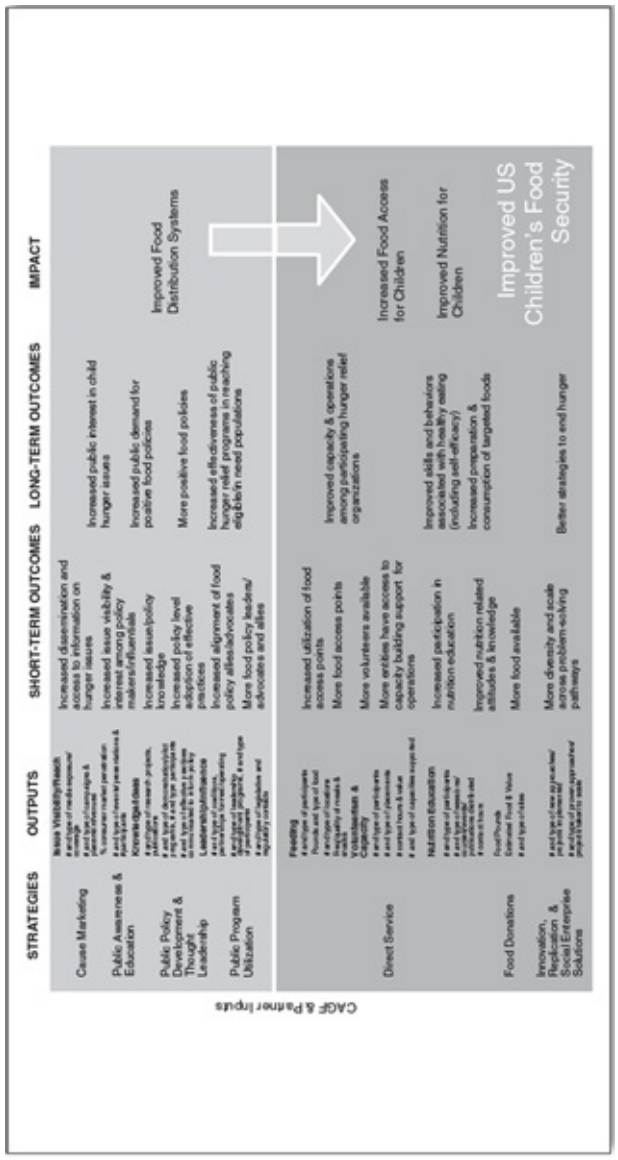
The ConAgra models are dynamic and will change. Any model, like a photograph, is simply a snapshot in time. To remain relevant, it must be revised. As evaluation provides feedback about what’s working, what’s not, and rate of return on investment, changes in the grantee portfolio can occur. This “steers the ship” based on performance data and changing contextual factors.

Alignment, Accountability, Action

These models and associated modeling supported plans and communication with external partners. It was critical to citing grantee accountabilities. It offered an important way to specify relative and shared outputs from activities that would influence outcomes. This evaluation capability is a challenge—often considered a “resource drain and distraction for nonprofit organizations.”

Ultimately, the indicators from the four grantees were used to inform an electronic reporting template. For ConAgra, it allows annual aggregation and can be used to describe value for its corporate giving. Like other corporate funders, ConAgra uses this information in internal communications and planning as well as with external stakeholders. With a clear picture, foundation staff can better manage emphasis within strategies that could have yields as the context for antihunger efforts changes.

Figure 8.3 ConAgra Foods Foundation Portfolio Logic Model



Source: ConAgra Foods Foundation, 2011.

Some of the important exploration, documentation, and accountability in this corporate giving example provides vital context for related internal CSR efforts. At ConAgra, CSR translates to "Good for You, Good For Community, Good for the Planet." These planks address an enormous range of issues, including food safety and quality, health and nutrition, biotechnology, animal welfare, workplace, suppliers, community investment, water stewardship, sustainable packaging, and climate change. Corporate philanthropy is included in the community plank.

We created proprietary models of ConAgra's cause and corporate giving in relation to other corporate functions. Those models are early inputs for strategic and structural decisions that will drive the childhood hunger cause across the enterprise. Importantly, they provide an initial view of how functional areas can cooperatively contribute to ConAgra's CSR profile. Explicating the potential synergies for functions like government relations, sales, and supply chain relative to a specific CSR cause supports "shared value" for multiple stakeholders.

As sectors converge, organizations of many types partner, and new alliances form, talented professionals need tools and processes that improve chances of success. Logic models and modeling offer great value to design, strategic planning, monitoring, and evaluation. They can contribute enormously to alignment and integration because they offer a picture that displays these powerful principles. When people and organizations can clearly see their role, it is more likely they can fully contribute. This case also offers a gentle reminder that accountability is central to social change. It

cites not only the intentions of a large corporation but also its grantee partners, who publicly called out their own work.

Ultimately, consumer awareness and action in communities all across the country are necessary to progress against this devastating problem. Along the way, savvy corporate funders and their colleagues will get further faster on complex social issues with potent tools and processes.

References

This content is adapted from a feature article, “Corporate Giving Gets Smarter,” in *The Foundation Review,* Spring 2012.

Kotler, P., Hessekiel, D., & Lee, N. (2012). *Good works: Marketing and corporate initiatives that build a better world … and the bottom line.* New York: Wiley.

Creation of this model was led by Phillips Wyatt Knowlton, Inc.

Profile 3: Kyrgyzstan Decent Work Country Programme

From 2006 through 2009, the International Labour Organization (ILO) supported a Decent Work Country Programme (DWCP) in the Kyrgyz Republic with 40 community-based projects. In 2010, the ILO hired a team of consultants to conduct an independent evaluation of its support to the program.

Based on an extensive review of documents, evaluators drafted a logic model (Figure 8.4) to conduct program design analysis. This model helped to show the entire program concept, or theory, at a glance and to visualize some gaps in the program logic. For example, the model showed a midterm outcome that was not related to a program priority (see “other areas of work” at roughly one o’clock on the orbital model).

Kyrgyzstan’s DWCP had three main priorities:

- Priority A: **Employment creation, skills, and employability for women and men** covers issues such as creating more job opportunities for both young women and men, including improving their work abilities, in order to increase their employability.
- Priority B: **Improving the national Occupational Safety and Health (OSH) system** focuses on upgrading policies, programs, and practices pertaining to the Kyrgyz national Occupational Safety and Health system.
- Priority C: **Reducing the decent work deficit in the informal economy** focuses on extending decent work reality and standards to other sectors of work, in particular the informal economy.

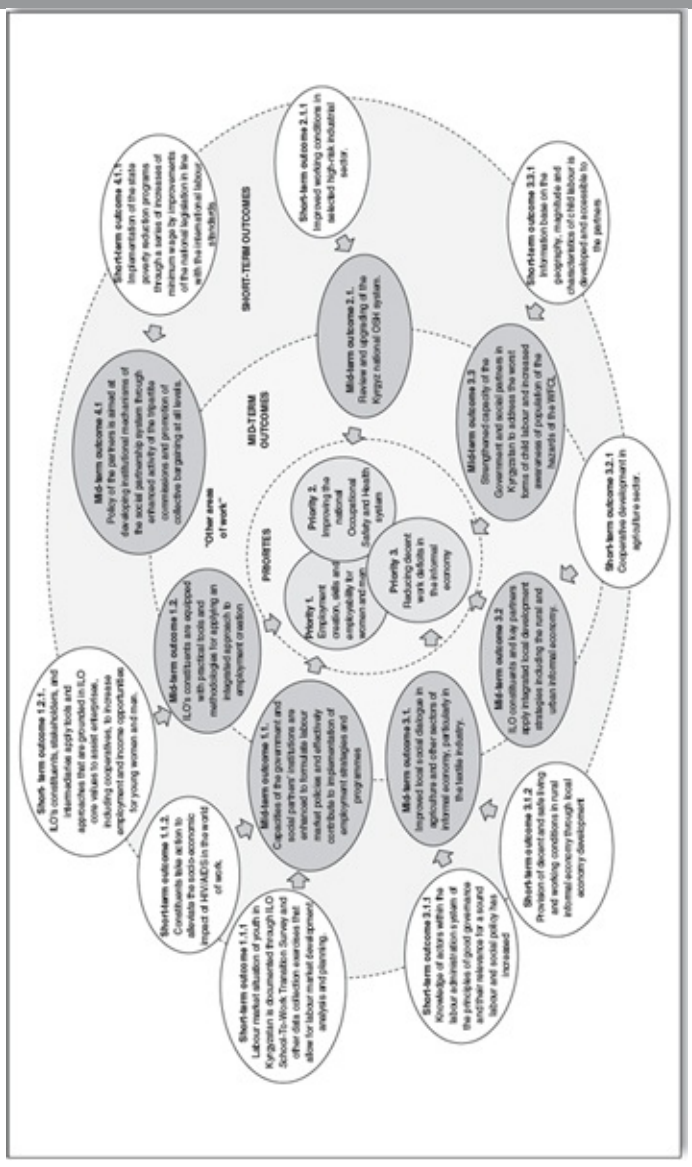
Because the program theory included several chains of intended outcomes contributing to three overlapping priority areas, a graphical representation was used given that a narrative description may have been inadequate or easily misinterpreted. The authors used a priority-centered “orbital” model with mid-term outcomes on the low orbit and the short-term outcomes on the high orbit. On this first, more complex model, the evaluators purposefully used shades of gray and made the center (priorities) dark, mid-term outcomes lighter, and short-term outcomes lightest. The importance of the three priorities suggested they would be best in dark and placed at the center to immediately attract the reader’s attention. The arrows show the theory behind the DWCP as illustrated by outcome chains leading to each priority. To read the model, begin from the outside and move toward the center.

As the evaluation process unfolded, it became clear to the evaluators that the core of the DWCP

could be presented as a combination of subregional project activities implemented in Kyrgyzstan that contributed to DWCP outcomes. To visualize this finding, evaluators developed a simpler orbital model that showed several projects that made major contributions to the implementation of the DWCP (Figure 8.5). The project shaded gray in this second model was the only "national" project (i.e., a project implemented exclusively in Kyrgyzstan).

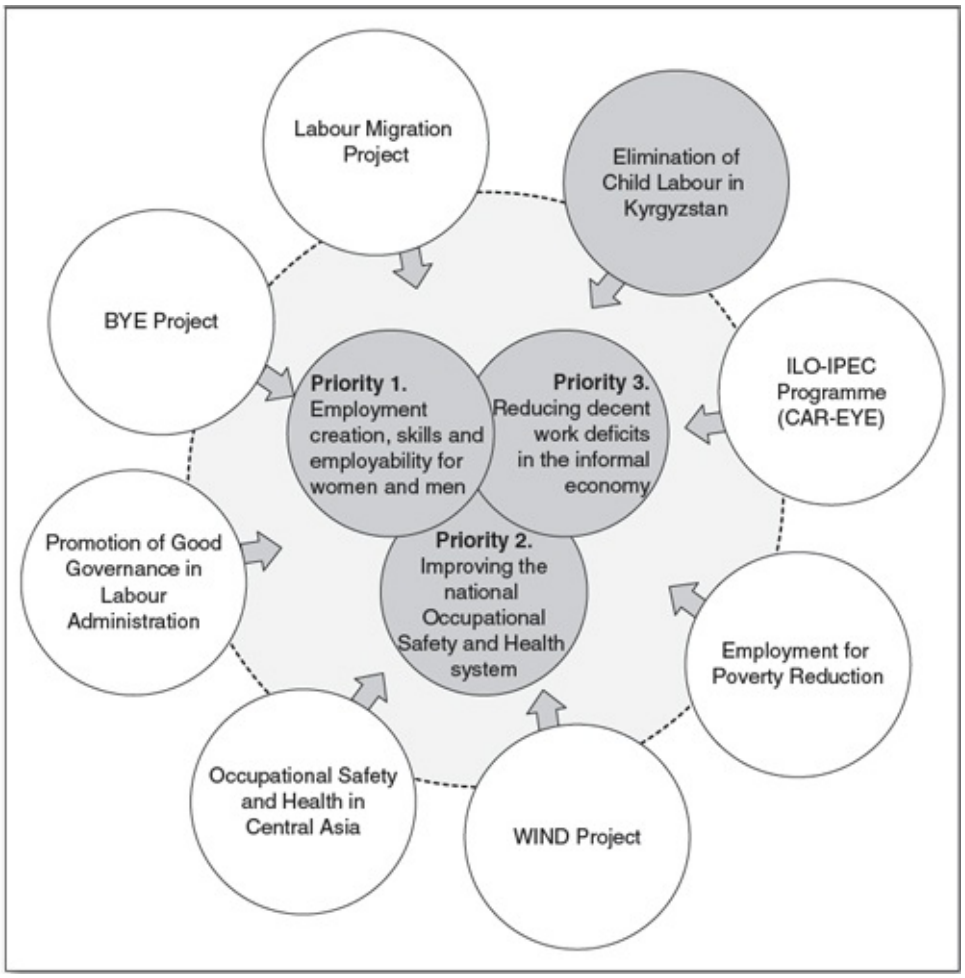
This model helped demonstrate the actual nature of the DWCP (combination of activities implemented under independent subregional projects) as opposed to the theory described in program documents and illustrated in Figure 8.4. The two models were presented in the same way and could be easily compared. The evaluators indicate this simpler version "represented evidence in a way that helped the evaluation team to introduce some findings in a clear and convincing manner." This profile demonstrates that models can be used to illustrate both theory and the actual program as implemented. The relative contrast can be informative for operations staff.

Figure 8.4 Kyrgyzstan DWCP Theory of Change With Outcomes



Source: Independent Evaluation of the ILO's Decent Work Country Programme for Kyrgyzstan: 2006–2009.

Figure 8.5 Kyrgyzstan DWCP Theory of Change



Source: Independent Evaluation of the ILO's Decent Work Country Programme for Kyrgyzstan: 2006–2009. International Labour Organization, 2010.

This evaluation focused on the ILO's strategic positioning in the country and its approach to setting an ILO agenda as well as the composition, implementation, and evolution of ILO national strategies as they relate to the Decent Work Agenda. The evaluation team concluded that:

- The DWCP in Kyrgyzstan was focused on the priorities jointly developed by the ILO and its constituents. Those priorities were relevant to the challenges Kyrgyzstan faced and were in line with key ILO strategic documents.
- Although it focused on the three clearly defined priorities relevant to the country context, the program was not based on a clearly defined logic model and was not logically coherent.

The evaluation team used primarily qualitative methods to collect data on the DWCP results. During data collection, the evaluation team reviewed 33 documents, interviewed 56 stakeholders, and conducted direct observation of several ILO projects. Evaluators recommended that the DWCP develop a coherent program logic based on priorities. The new DWCP program logics should be coherent and focused on the priorities identified by the tripartite constituents rather than on the existing regional projects with secure funding.

References

For additional information, contact Alexey Kuzmin at alexey@processconsulting.ru and Craig Russon at russon@ilo.org.

The evaluation report for this work is found at *Independent Evaluation of the ILO's Decent Work*

Country Program: Kyrgyzstan: 2006–2009. Retrieved December 22, 2011, from http://www.ilo.org/public/english/bureau/program/dwcp/download/eval-kyrgyzstan.pdf

Profile 4: Alabama Tackles Asthma

Twenty-three million adults and children suffer from asthma in the United States, incurring an estimated $13 to $20 billion in direct medical costs and indirect costs due to lost productivity annually. In Alabama, 1 in 10 residents is diagnosed with asthma. It is a substantial chronic health issue with significantly different prevalence for gender and race. Women experience asthma at a rate twice that for men and have a nearly double rate of death. African Americans have an incidence rate of 3 percentage points more but double the rate of death for the Caucasian or white population.

Led by the Alabama Department of Public Health and co-created with the Alabama Asthma Coalition, public health officials and a broad assembly of stakeholders built a 5-year strategic plan to affect asthma. This plan was the basis for an overarching and generic model that guided multiple committees to author committee models with specific activities and outcomes.

The model generates its own evidence base for community- and statewide programs (see Figure 8.6). A primary activity of the model is to act as a surveillance system. It will collect data, establish baselines in areas where no data exist, and map disparate populations and areas of poor air quality or high emissions. This initially informs comprehensive annual burden reports. In this way, the surveillance system enables other aspects of the program to rely on data. Short-term outcomes include acquisition of baseline data as well as a continuing stream of information that will be used to inform activities, programs, and policymaking efforts.

Three gross areas are identified in the model, reading left to right: inputs, outputs, and outcomes. The meta-model is intended to be generic; the color-keyed letters refer the reader to specific committee pages for more detailed descriptions of the activities and outcomes. The activities listed on this page are intended to be implemented in the coming years, with selected activities to continue throughout the cooperative agreement. These activities are jointly performed by separate committees, from different viewpoints. For instance, both the Community/School (C) Committee and the Environmental (E) Committee will be working on implementing Tools for Schools in schools. However, the C Committee will be working on the educational programs and public awareness, while the E Committee will work from the indoor and outdoor air quality aspect. Once the program has been implemented by those committees, the project will be picked up by the Advocacy and Policy (A) Committee to bolster statewide adoption and public support for asthma-friendly policies and ordinances. The model also includes a specific list of both assumptions and external factors.

Each committee has its own “nested” logic model that coordinates with the meta-model but gives more details regarding each planned activity and its intended outcomes, as well as tailored inputs, assumptions, and external factors. Future logic models will include separate models for each intervention planned during a particular time frame and thus allowing for ease in adapting activities as needs change or evaluation shows the efficacy of the planned interventions.

After providing an initial overview of logic models, Public Health staff sent each committee labeled sheets (a template) for them to prepare relevant and focused content for their committee models. In a social process, the facilitator provided a chance for review of each model and its fit with a larger view. This provided an important opportunity for engagement.

The logic model shown here has been used as a guide to where interventions and activities are leading—the ultimate outcome—as well as showing which committees have parts to play during the

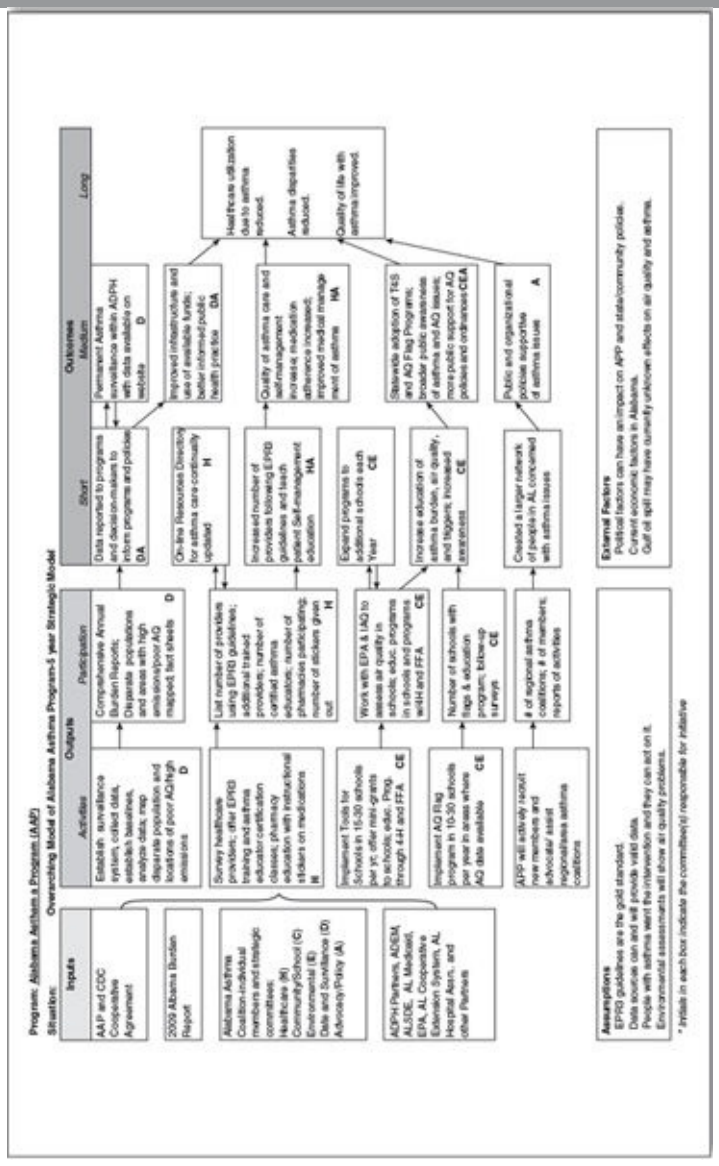
process. It has been adapted and changed as there is discovery about what works and what doesn't. For example, funding has been limited in some of the work associated with schools, but the "No Idling Campaign" exceeded expectations. School bus drivers attended an in-service and signed a pledge not to idle buses more than 5 minutes, resulting in gas cost savings and less emissions in the environment.

In this case, modeling was an asset for several reasons: It helped connect stakeholders, engaged vital expert contributions, provided a common communication platform, and managed expectations for more realistic timelines, resources, and program design. The nested models contributing to a whole also ensured important alignment among work teams.

Note that the model includes short-, medium-, and long-term outcomes, which are planned to reduce healthcare utilization due to asthma, reduce disparities among those who suffer asthma, and improve quality of life for patients and their families.

This exciting public health work to reduce asthma in Alabama was part of the CDC National Asthma Control Program. Staff expect models will be revised to serve future planning, monitoring, and evaluation needs as their work continues through 2014.

Figure 8.6 Alabama Asthma Program Logic Model



Source: Alabama Department of Public Health and the Alabama Asthma Coalition, 2010.

References

Contact Debra Hodges (at debra.hodges@adph.state.al.us), Alabama Department of Public Health. See also:

Williamson, D. E., Miller, T. M., & McVay, J. (2009). *Alabama asthma burden report*. Montgomery, AL: Alabama Department of Public Health. Retrieved December 22, 2011, from http://adph.org/steps/assets/ALAsthmaBurden.pdf

Profile 5: Resilient Communities

A "world of resilient communities and re-localized economies that thrive within ecological bounds" is an exciting vision. This is the work of the Post Carbon Institute (PCI). Created in 2003, PCI is leading the transition to a more resilient, equitable, and sustainable world.

Alarming changes reflecting fundamental crises face our planet. Experts in economics, ecology, political systems, social justice, public health, and the environment can each cite complex challenges in their respective content areas. As these challenges converge and interact, they affect every living thing. Identifying those intersections for both vulnerabilities and opportunities is vital to building a more resilient society. The PCI suggests the following assumptions are essential in future planning:

- None of our global problems can be tackled in isolation.
- We must focus on responses not just solutions.
- We must prepare for business unusual.

The PCI theory of change model (see Figure 8.7) is read counterclockwise, beginning with mission and continuing through audiences, strategies, focusing events, desired shifts, and impact.

The model uses variations in contrast to sequentially lead the reader through the information. The stylized area around focusing events, crises, and windows of opportunity was included to emphasize this area: an integral part of strategy formulation/implementation that can be easily overlooked in logic models/theories of change. The increased contrast around the area of *impact* was chosen to add emphasis, implying the role the rest of the model serves in contributing to impact. Authors elected to design the model in grayscale, since it is so common to see beautifully color-rendered models lose significance when they are printed—which is often in black and white.

Innovation Network staff created the model based on content gathered from interviews with PCI staff, fellows, board members, volunteers, funders, and peers. A literature review of assessment areas for similar thought leadership organizations was conducted and also informed the work. The model is based on interview theme analysis, field approaches to evaluation of like entities, and a thorough review of PCI documents. Iterative feedback on versions of the model contributed to its development.

Models provided an interactive and important approach to discovering a representative consensus by stakeholders. The theory of change model was presented in tandem with recommendations for monitoring and evaluation approaches. It has also helped support refinement of strategy and related work plans. While the model relies on evidence collected during interviews, literature, and document review, it also helped generate a hypothesis about the connection between organization strategies and desired outcomes. In this regard, the model was largely successful.

The modeling process was an asset to the PCI. It created a way to capture the many and varied perspectives of vital stakeholders about the organization's planned work. It enabled staff to find agreement on key audiences, strategies, and desired shifts. It also helped staff to sharpen their understanding and language regarding key points of the organization's work—generating a clarity

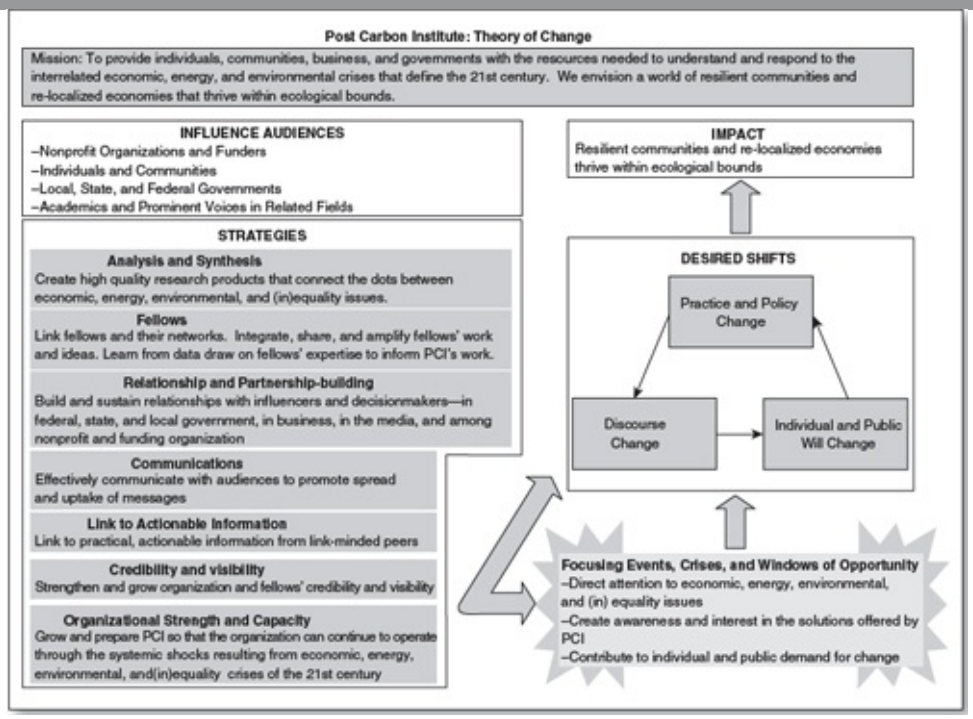
and focus that was vital to their organization development.

References

Additional detail regarding this model can be secured via contact with Johanna Morariu at Innovation Network, jmorariu@innonet.org.

For more on the Post Carbon Institute, see http://www.postcarbon.org/about/

Figure 8.7 Post Carbon Institute Theory of Change



Source: Innovation Network & PCI, 2010.

Profile 6: Sheltering Families

Michigan's challenging economy has created structural unemployment and increases in poverty. These conditions affect people in serious, life-altering ways. Fortunately, there's an important resource for homeless families in East Lansing called Haven House. It provides emergency housing and support services for one- and two-parent families with children. The shelter helps families who are homeless prepare for permanent housing by developing and promoting self-sufficiency, stability, and financial responsibility.

Through an applied experience, students in a Michigan State University (MSU) evaluation course became acquainted with the services of Haven House. The first model draft was created by working with the MSU professor and describing what happens to clients when they come into shelter. This initial work was given to the students, who then met with staff to ask clarification questions and direct program questions. Several meetings and associated modeling were required to edit and revise the display to accurately represent the Haven House program.

The model (see Figure 8.8) describes Haven House programs, including case management. It portrays the evolution of a client in the shelter, barriers, and possible outcomes and includes external

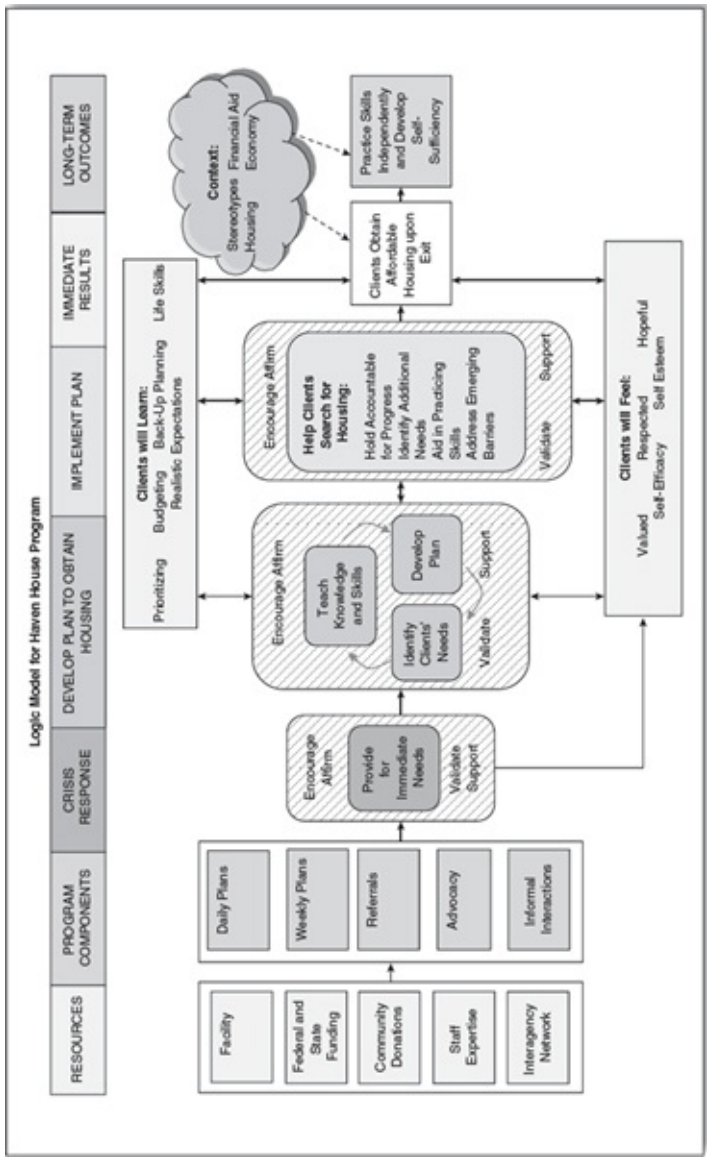
and internal forces that affect outcomes. Read from left to right, the Haven House model is based on the typical elements of a program logic model with some important adaptations. The program components appear in a single column, but this version of the model explicates both the crisis response and the intervention to obtain housing and its implementation. The organization's response and specificity in the service delivery raises important feedback issues about a key constituency: Haven House clients. The original model uses color to code elements of the plan to column headers. Note that in this display, immediate and long-term outcomes are cited. Important context is also articulated.

As part of a broader evaluation plan, students focused on assessment of client satisfaction as well as changes in knowledge and skill. For this reason, they posted, on the model, constructs about client feeling and learning. These constructs guided the creation of features that indicate intended feelings (e.g., hopeful, valued) and new skills like budgeting. To determine the influence of Haven House, one aspect of the evaluation included a client survey. These data were collected and analyzed for sharing with staff. They provided important feedback and insight from the client's perspective. One resident shared, "I loved the experience. It was something I needed at 18 so that I can grow, meet different people, and learn new ways to do different things." Another said, "Overall it's a good program and if the rules are followed then success will come." The model is a valued communication tool in external relations. It also helps staff to visualize their role and the barriers residents face. Participants indicate the modeling process and associated evaluation work were clarifying. Angie Mayeaux, Haven House director, says, "Much of the services we provide are difficult to articulate. The modeling pushed staff to really look at what they do and how they do it. Our staff also took some pride in seeing their work captured in the logic model."

References

For more information, see www.havenhouseel.org.

Figure 8.8 Haven House Program Logic Model



Source: Haven House, 2007.

Profile 7: Environmental Leadership

Paint can have significant unintended environmental impacts—contaminating groundwater, harming fish and other aquatic life. Because it is combustible and contains solvents, it is also considered a hazardous waste. While most paint sold is now latex instead of oil based, managing leftover paint is a big and costly challenge for Americans. Nationwide, households generate some 75 million gallons of leftover paint. This is about 10% of the amount of paint purchased annually. At more than $8 per gallon, the estimated cost to manage it is substantial. In Oregon, paint is the single largest contributor to household hazardous waste programs.

In 2002, product stewardship for postconsumer paint began when paint manufacturers, local state and federal agencies, and retailers, along with consumer and environmental agencies, formed the Paint Product Stewardship Initiative (PPSI). Facilitated negotiations by the Product Stewardship Institute (PSI) helped to create an industry-managed postconsumer paint management system. After many years, in 2009, Oregon became the first state in the United States to enact a law that identifies product stewardship as the preferred method to reduce environmental impacts and costs associated with leftover paint.

Oregon's statewide system for the collection of postconsumer latex- and oil-based paint is based on six goals originally created by the PPSI:

- **Goal 1:** The pilot project is a collaborative and cooperative process.
- **Goal 2:** Establish a paint stewardship organization (PSO), which operates under the direction of the paint industry.
- **Goal 3:** Consumers (including painting contractors) generate no or less waste paint and containers.
- **Goal 4:** The statewide postconsumer paint management system should be designed to ensure that it is environmentally beneficial, economical, and convenient. With these considerations, the system should strive to use methods highest on the following waste management hierarchy: reuse, recycling (into paint or other products), energy recovery (generally applicable to oil-based paint), and proper disposal.
- **Goal 5:** Identify cost-effective alternatives for using postconsumer paint products and explore means to expand the market for products containing post-consumer paint.
- **Goal 6:** Measure and evaluate the performance of the pilot project, and ensure the results and learning that the evaluation generates are transferable and relevant to the rollout of a national postconsumer paint management system.

The PPSI formed an evaluation committee to ensure overall accountability and implementation of the last goal.

The Oregon program is composed of a diversity of interconnected systems, actors, and processes. The major components of the Oregon program are the paint stewardship organization (PaintCare), the oversight by the Oregon Department of Environmental Quality (OR DEQ), the paint market, and the leftover paint management system (see Figure 8.9 for original drawing).

There are multiple points of access to this model. A reader might start from the left at the PPSI and freely flow through the graphic, gaining an understanding of the flow of paint from manufacturer to recycling, exiting the graphic on the right side where the learning from the PPSI pilot program is transferred to other states in the United States. On the other hand, a user may simply begin clicking on the numbered paint "splatter" evaluation questions because it's more fun. Through strategic placement of basic design elements and principles of graphic design, the model allows the user to take and be taken on a visual journey, free and flowing or abrupt and acute, both representing practical, though abstract and ambiguous, program space and the fluidity of paint.

The model (see Figure 8.10) is intended to be accessible and used at many levels—from the surface, a user can glance at the primary actors, processes, and systems involved, while closer inspection and a look below the surface gives access to the program's underlying research and data that are embedded in the model and influence the shapes of the systems, placement and engagement of actors and processes, and the connections between program components. Hotlinks take the viewer/user to documents for associated purposes. The model uses multiple colors to key attention to functional areas. The refined model versions were created in Adobe Illustrator.

The evaluation team developed a "fuzzy" logic model with the intent of expanding the accessibility and use of the evaluation (and program) and the evaluation process to a greater diversity of stakeholders over a longer time. Authors of the model refer to it as "fuzzy" because it embraces fluid and approximate reasoning and varied context and assumptions with the aim of improving the capacity of models of program theory to navigate nonlinearity, feedback loops, adaptive agents, and other key concepts of complexity integral to the life cycle of environmental programs and policies.

Subsequent integration of Web 2.0, graphic design and arts, and data visualization with traditional logic models gives the evaluator the capacity to embed an unlimited type and quantity of content into a web-based model of the program (see Figure 8.10).

The PPSI required considerable research, conceptualization, design, and planning completed prior to program implementation. It relies on evidence and generates some hypotheses.

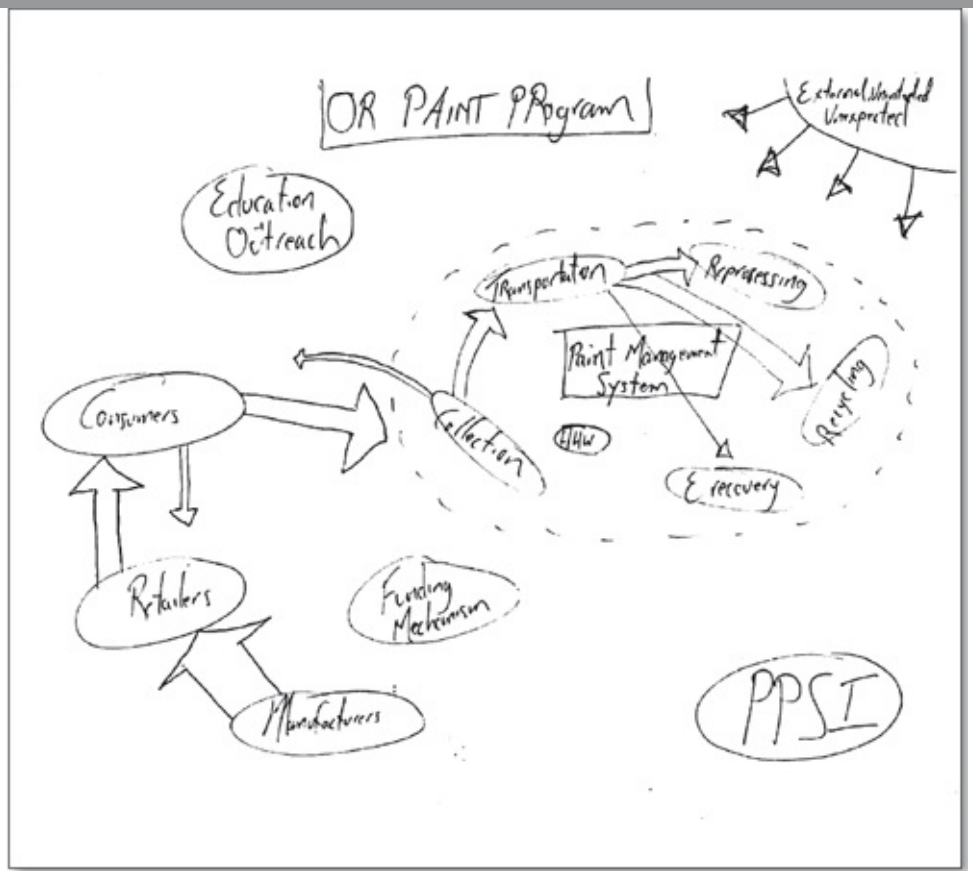
The model was created before the program was implemented. The model represents the theory of the program as agreed upon by the evaluation committee. After the model was created and when the PPSI had a better view of how everything related, the model influenced evaluation questions and performance measures as well as the effort and the views of the evaluation committee, the PPSI, and pilot program as a whole.

Model creators project constant adaptation of the model. It has been in constant flux since inception. The graphic has generally remained constant after consensus of the evaluation committee, but it is constantly evolving as the committee completes its work and that information is embedded in the model.

As a web-based tool, there is the option to integrate social media to encourage constant feedback and discussion. Currently, there is a dedicated Facebook page that users can access from the website to leave comments and feedback, ask questions, or start discussions.

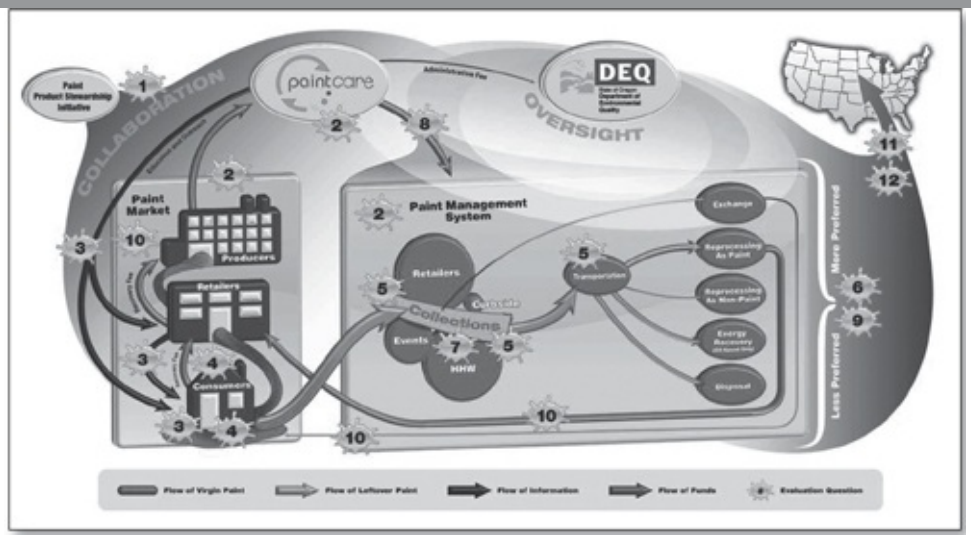
At the time of the evaluation committee's reporting (1 year after program implementation), much of the data collected establishes baselines of cost, volume, consumer behavior, and so forth. Some of these findings influenced the model. For instance, larger fees resulted in widening the green arrows, finding out where exactly disposed paint goes requires adding an arrow where there was none, and identifying the companies contracted for transportation and recycling requires new pop-up boxes and additional text to describe them.

Figure 8.9 Paint Product Stewardship Initiative Concept



Source: Paint Product Stewardship Initiative, 2011.

Figure 8.10 Paint Product Stewardship Initiative Logic Model



Source: Paint Product Stewardship Initiative, 2011.

References

Matt Keene, Policy Office, U.S. EPA, and Chris Metzner, a graphic artist, were deeply involved with the development of the PPSI models. They can be reached via email at mattkeene222@gmail.com and chris@chrismetzner.com, respectively.

Visit the live website: Retrieved December 22, 2011, from http://www.PaintStewardship Program.com

Download required scripts for pop-up boxes: Retrieved December 22, 2011, from http://flowplayer.org/tools/demos/overlay/index.html

Oregon Department of Environmental Quality, Paint Product Stewardship. Retrieved December 22, 2011, from http://www.deq.state.or.us/lq/sw/prodstewardship/paint.htm

IN SUMMARY

Logic models are a potent tool for many reasons and multiple functions. They are robust communication platforms that can anchor a shared construction that eventually serves strategy development, monitoring, evaluation, and learning. These field profiles offer a big range of subject matter content and use. Each was created in a process that reflected particular circumstances. They vary considerably in display and frame problems, both implicit and explicit. The preceding chapters suggest ways to both test and improve their quality.

LEARNING RESOURCES

Reflection

1. What features of logic models are most common in the field profiles shown in this chapter? Why?
2. Which model is most like the one you might create? Why does it resonate with your communication style or purpose?
3. Which model is most difficult to interpret? Can you name the reasons? Are there changes you would make to simplify or clarify it?
4. Which model represents work that's most likely to garner the intended results?
5. Can you articulate assumptions for each model? How would you cite the problem(s) each solves?
6. Consider contextual barriers and facilitators for each model. Try to name some for each.

Exercises

1. Revisit Chapter 4 and consider quality principles for each model. How does this influence your perception of the model's potential to describe work and associated results? Are there changes you would make?
2. Explain the purpose of a given model and its content. Then ask two small groups to draw a model. Compare it to the figure shown. What differences are there? Why? Any improvements?
3. Prepare an evaluation design for the ConAgra Foods Foundation (Profile 2). How do the models help or hinder? What questions does the process raise?
4. Try to locate an evidence base for each of the models. How does your discovery inform corrections or edits to the models?

References and Supplemental Readings

Texts

Krogerus, M., Tschappler, R., & Piening, J. (2008). *The decision book: Fifty models for strategic thinking.* London: Kein & Aber.

Nissen, M. E. (2006). *Harnessing knowledge dynamics: Principled organizational knowing and learning.* Hershey, PA: IRM Press.

Osterwalder, A. (2010). *Business model generation: A handbook for visionaries, game changers and challengers.* Hoboken, NJ: Wiley.

Pugh, K. (2011). *Sharing hidden know-how: How managers solve thorny problems with the knowledge jam.* San Francisco: Jossey-Bass.

Rumelt, R. (2011). *Good strategy bad strategy: The difference and why it matters.* New York: Random House.

Sibbett, D. (2010). *Visual meetings: How graphics, sticky notes and idea mapping can transform group productivity.* Hoboken, NJ: Wiley.

Journal Articles

Astbury, B., & Leeuw, F. L. (2010). Unpacking black boxes: Mechanisms and theory building in evaluation. *American Journal of Evaluation, 31*(3), 363–381.

Brandon, P. R., Smith, N. L., & Hwalek, M. (2011). Aspects of successful evaluation practice at an established private evaluation firm. *American Journal of Evaluation, 32*(2), 295–307.

Garcia-Iriarte, E., Suarez-Balcazar, Y., Taylor-Ritzler, T., & Luna, M. (2011). A catalyst-for-change approach to evaluation capacity building. *American Journal of Evaluation, 32*(1), 168–182.

Kundin, D. M. (2010). A conceptual framework for how evaluators make everyday practice decisions. *American Journal of Evaluation, 31*(3), 347–362.

Piggott-Irvine, E. (2010). Confronting evaluation blindness: Evidence of impact of action science-based feedback. *American Journal of Evaluation, 31*(3), 314–35.

Saari, E., & Kallio, K. (2011). Developmental impact evaluation for facilitating learning in innovation networks. *American Journal of Evaluation, 32*(2), 227–245.

Skolits, G. J., Morrow, J. A., & Burr, E. M. (2009). Reconceptualizing evaluator roles. *American Journal of Evaluation, 30*(3), 275–295.

Internet and Other Resources

Center for Civic Partnerships. (2007). *Organizational learning: Tips, tools and resources*. Retrieved December 21, 2011, from http://www.civicpartnerships.org/toolsRes.htm

Foundation Center. (2011). *Tools and resources for assessing social impact*. Retrieved December 21, 2011, from http://trasi.foundationcenter.org/about.php

Human Resource Development Council. (n.d.). *Organizational learning strategies*. Retrieved December 22, 2011, from http://www.humtech.com/opm/grtl/ols/ols2.cfm

Problem-solving Techniques. (2011). *Problem-solving techniques* portal. Retrieved December 22, 2011, from http://www.problem-solving-techniques.com/Problem-Solving-Tools.html

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