

DESIGNING SOLUTIONS FOR YOUR BUSINESS PROBLEMS

A Structured Process for Managers and Consultants

Betty Vandenbosch







DESIGNING SOLUTIONS FOR YOUR BUSINESS PROBLEMS

A Structured Process for Managers and Consultants

Betty Vandenbosch



Copyright © 2003 by John Wiley & Sons, Inc. All rights reserved.

Published by Jossey-Bass A Wiley Imprint 989 Market Street, San Francisco, CA 94103-1741 www.josseybass.com

Except as noted below, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400, fax 978-750-4470, or on the web at www.copyright.com. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, 201-748-6011, fax 201-748-6008, e-mail: permcoordinator@wiley.com.

The material on the electronic component packaged with this publication (except those for which reprint permission must be obtained from the primary sources) may be reproduced for educational/training activities. We do, however, require that the following statement appear on all reproductions:

Designing Solutions for Your Business Problems by Betty Vandenbosch. Copyright © 2003 by John Wiley & Sons, Inc. Published by Jossey-Bass, San Francisco, CA.

This free permission is limited to the reproduction of material for educational/training events. Systematic or large-scale reproduction or distribution (more than one hundred copies per year)—or inclusion of items in publications for sale—may be done only with prior written permission. Also, reproduction on computer disk or by any other electronic means requires prior written permission. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, 201-748-6011, fax 201-748-6008, e-mail: permcoordinator@wiley.com.

Jossey-Bass books and products are available through most bookstores. To contact Jossey-Bass directly call our Customer Care Department within the U.S. at 800-956-7739, outside the U.S. at 317-572-3986 or fax 317-572-4002.

Jossey-Bass also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Library of Congress Cataloging-in-Publication Data

Vandenbosch, Betty, 1956-

Designing solutions for your business problems: a structured process for managers and consultants / by Betty Vandenbosch.—1st ed.

p. cm.—(The Jossey-Bass business & management series)

Includes bibliographical references and index.

ISBN 0-7879-6765-3 (alk. paper)

1. Problem solving. 2. Management. 3. Business consultants. I. Title. II. Series.

HD30.29.V32 2003

658.4'03—dc21 2003009617

Printed in the United States of America

FIRST EDITION
HB Printing 10 9 8 7 6 5 4 3 2 1

THE JOSSEY-BASS BUSINESS & MANAGEMENT SERIES

CONTENTS

Tables & Figures ix

Acknowledgments xiii

The Author xv

Introduction 1

PART ONE: GETTING STARTED

- 1 All Problems Are Local: Understanding the Situation 13
- 2 What's the Point? Agreeing on the Objective 28
- 3 People Have to Be Interested: Building Relationships 41Using the Tools 50

PART TWO: PLANNING THE PROJECT

4 Size Matters: Determining the Scope 55

5 Less Is More: Constructing Hypotheses 67

viii Contents

6 How, When, and Who? Planning the Effort 83

7 People Have to Be Part of It: Nurturing Commitment 95Using the Tools 102

PART THREE: DESIGNING THE SOLUTION

- 8 Not Just the Facts: Building the Logic 105
- 9 If You Can't Choose, You Lose: Designing the Solution 119
- 10 Who's Going to Do It? Driving Execution 131Using the Tools 147

Conclusion 148

Appendix A: Mapping Processes 150

Appendix B: Interviewing to Collect Data 161

Notes 182

Index 185

How to Use the CD-ROM 189

TABLES & FIGURES

Tables

- 1.1 Details of the Transformation 15
- 1.2 Elements of the Situation 19
- 2.1 Stakeholder Analysis 31
- 3.1 Elements of a Communication Plan 45
- 4.1 Resource Assessment Matrix 57
- 4.2 Scoping Diagram Guidelines 60
- 4.3 Possible Frameworks for Organizing Scoping Diagrams 65
- 6.1 Six Types of Risk in a Project 85
- 6.2 Risk Assessment Matrix 85
- 6.3 Skills Inventory 89
- 6.4 Work Plan 90
- 8.1 Flaws in Decision Making 106
- 9.1 Solution Dimensions 127
- 9.2 Voting on Solutions 128
- B.1 Interview Objectives 163
- B.2 Interview Trade-Offs 165
- B.3 Interviewee Types and Possible Responses to Them 180

x Tables & Figures

Figures

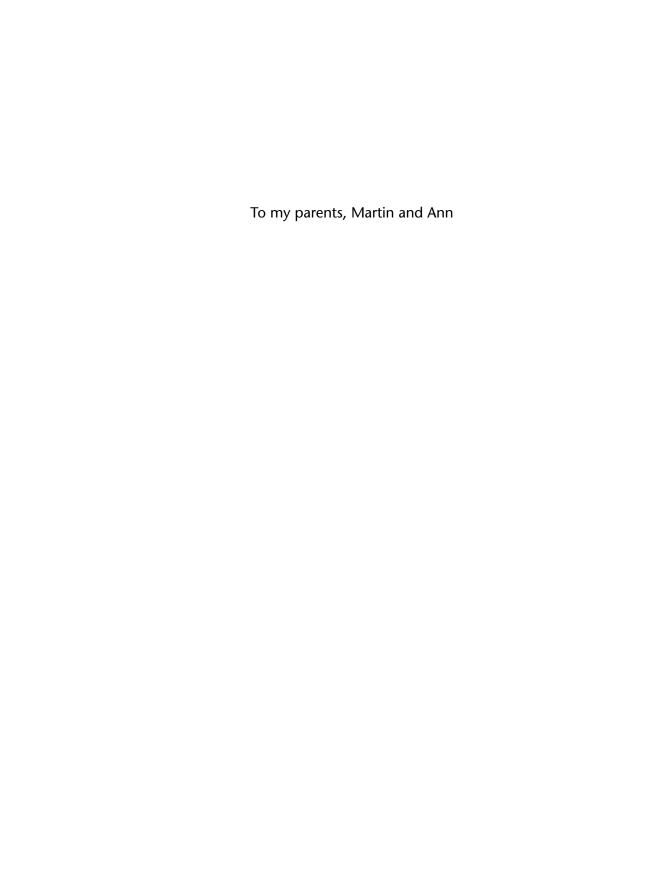
I.1	Process Details 6
I.2	Designing Solutions Tool Kit 10
1.1	Generic Transformation Process 15
1.2	Simple Transformation 16
1.3	Measurement Process 17
1.4	Rich Picture of a Building Supply Manufacturer's
	Relationship to Its Customers 23
1.5	Relationships at a Magazine Publisher 24
1.6	What Should Be Going On After a Bank Restructuring
	of Client Connections 24
1.7	What's Actually Happening After a Bank Restructuring
	of Client Connections 25
1.8	Another Rich Picture of the Building Supply Manufacturer 26
2.1	Project Relationships 31
2.2	Good Objective 37
4.1	Scoping Diagram 59
4.2	Examples of Scoping Diagrams with Errors 62
4.3	Two Possible Scoping Diagrams for a Single Assignment 63
4.4	Issue Tree 66
5.1	Hypothesis and Supporting Questions 75
5.2	Hypothesis and Supporting Statements 75
5.3	Frames for Statements in Figure 5.2 76
5.4	Supporting Statements That Do Not Fully Support the Hypothesis 78
5.5	Support for the Statements 79
5.6	Data Matrix 80
6.1	Work Breakdown Template 86
6.2	Example Work Breakdown Structure 88
7.1	Divergent Opinions of the Problem-Solving Team and
	the Client Organization 99
8.1	Logic Diagram Template 107
8.2	Logic Diagram for the Acme Project 112
8.3	Logic Design Flaws 114
8.4	Evolving Logic Diagram 116
9.1	Range of Solution Options 129
10.1	Sample Report or Presentation Structure 136
10.2	Deductive Argument 137

10.3 Inductive Argument 137

Tables & Figures xi

10.4	Run-On and Grouped Report Structures	139
10.5	Value of Headlines 141	
10.6	Force Field Analysis Template 144	
A.1	Processed Cheese Process Flow 151	
A.2	Different Views of the Same Process 152	
A 0	D 1 ' C D 150	

- A.3 Boundaries of a Process 153
- A.4 Symbols Used in a Process Map 154
- A.5 Process Map for Stock Replenishment 155
- A.6 Process Details 156
- A.7 Evaluating a Process 160
- B.1 Sample Interview Guide 168
- B.2 Sample Interview Report 179



ACKNOWLEDGMENTS

The problem-solving process described in this book has evolved from more than two decades of consulting and teaching. Its development began with my experiences as a consultant with McKinsey & Company, where I learned best practices of problem solving and consulting from the ground up. Although the approach I describe in this book is not McKinsey's process, my experiences there had a great deal to do with my understanding of what world-class problem solving entails. I owe a debt to my many McKinsey mentors and colleagues.

I am also a director of PDN Limited, a professional services advisory firm specializing in consultancy skills training and professional development. I have borrowed liberally from the PDN materials in the development of this book and thank my partners for helping me with their insights and encouragement.

My students at the Weatherhead School of Management at Case Western Reserve University have read many of the chapters for their coursework. Their comments and criticisms have contributed to refinements of the process and its supporting tools and techniques.

Although the ideas explored here have taken years to develop, I wrote most of the book while I was on sabbatical from Weatherhead. I thank Dick Boland and Fred Collopy for giving me the freedom to write it.

I also thank the many people who read drafts of the book, some long before it was worth reading. They include Zachary Coleman, Niels Dechow, Ann Hagan,

xiv Acknowledgments

Mike Hastings, Darrell Hawkins, William Johnson, Kenneth Lay, David Maister, Al Morrison, John Savage, Paul Stork, and Ed Wilton.

I thank Jeff Darner, Tom Helfrich, and Henry Meyer at KeyCorp. They gave me a place to work when, at home, laundry and dishes seemed more enticing than writing.

Finally, I thank Laura George. She made sure all the details were taken care of and that the end product looked like a book rather than a confusing collection of ill-formatted Word and PowerPoint files.

THE AUTHOR

Betty Vandenbosch has over twenty years of experience in consulting and education. She develops courses and teaches graduate students, executives, and consultants in traditional classroom and workshop settings on such topics as system thinking, communication and negotiation, consulting skills and processes, project management, and the strategic use of technology.

Vandenbosch is an associate professor of information systems at the Weatherhead School of Management at Case Western Reserve University. She researches and writes about the impact of information technology on individual and organizational performance. She is also a director of PDN Limited, a professional services development firm specializing in consultancy skills training.

Earlier in her career, she spent nearly seven years as an associate, engagement manager, and senior engagement manager with McKinsey and Company in Toronto and Amsterdam. In addition to consulting with clients on strategic, organizational, and operational issues, she developed and conducted tailored training sessions and seminars for her colleagues in North America, Europe, and Asia.

She was educated at the University of Western Ontario, where she earned a B.Sc. in Computer Science and an M.B.A. and a Ph.D. in Management Information Systems.



INTRODUCTION

Trecently overheard a conversation my twelve-year-old son, Martin, had with his friend Johanna while riding in the back seat of our car. In the midst of their chatter, he proudly announced, "My mom's writing a book!"

"About what?" Johanna asked.

"Management consulting."

Unimpressed, Johanna inquired, "What is that?"

To this, Martin confidently replied, "A management consultant is who you call when you're in a tight spot."

Leave it to Martin to sum up a multibillion dollar industry in one sentence. Martin got it partly wrong, however. This is not a book about management consulting. Rather, it's about how to get out of a tight spot.

Managers face an endless stream of ambiguous problems and opportunities that they don't have nearly enough time, resources, or process know-how to sort through and address. Although most of them are perfectly able to understand situations, solve problems, and seize opportunities, their techniques often are inefficient. Expert problem solvers, in contrast, are masters of process, and their process know-how—their ability to scope a project, conduct an analysis, develop airtight logic, and encourage creativity—is a large part of why they are expert. This is not to imply that your solutions should be of the cookie-cutter variety—quite the contrary. But if you do not have to revisit how to move forward every time you start a project, you can spend more time concentrating on the problem

or opportunity itself. *Designing Solutions for Your Business Problems* provides the process know-how, which will reduce the time and resources you will need.

This book is intended for people who are concerned with improving organizations. If you are a manager who wants to benefit from a creative and disciplined approach to problem solving, a consultant hoping to hone your skills, or thinking about becoming a management consultant, *Designing Solutions for Your Business Problems* can help you.

To say that this book is about solving problems is a vast oversimplification. The idea of a problem is inherently problematic: it focuses on what is wrong. A more fruitful and considerably more enjoyable approach to problem solving is to focus on what is possible or desirable—that is, to build on what is already good. When you look at any situation, it makes sense to view it from several angles, including examining what needs fixing and what can be built on. A solution does not necessarily have to solve a problem. The best way to stop smoking, for example, is never to start in the first place. The best way to strengthen an organization may not be to solve problems and fill gaps but rather to build on the base of capabilities it already has.

Solving problems and capitalizing on opportunities is hard. Those who need help worry that the problem solvers do not have a comprehensive understanding of the organization's context; perhaps they don't understand the business, the people, the customers, the competition. They worry that the problem solvers don't have enough experience to inform their recommendations. Problem solvers worry that those whom they are helping are not sufficiently involved, that they have been asked to solve the wrong problem, that those who need help don't understand the problem-solving process, and that they lack the know-how to move ahead once the problem solver has gone on to the next project. *Designing Solutions for Your Business Problems* helps you overcome these very real concerns.

While some problem solvers would have you believe that they have unique and superior approaches, at the process level, most expert problem solvers tackle issues and design solutions in roughly the same manner. They combine the best aspects of deductive and inductive reasoning.

Deductive reasoning is the process you use when you hypothesize the solution to a problem based on your previous experience, intuition, and the data to which you already have access. In order to find out whether you're right, you develop a series of tests or collect additional data to prove or disprove your initial point of view. The scientific method is derived from deductive reasoning.

Inductive reasoning is the process you use when you collect data in an effort to understand a situation and then sift through those data to infer "the answer." Creative problem-solving techniques rely heavily on inductive processes.

Introduction 3

There are clear trade-offs between inductive and deductive approaches. Inductive problem solving is effective for developing a solid understanding of the situation. It has the potential to lead to new insights and is also more likely to result in broader systemic solutions. However, when using an inductive approach, you can easily stray into irrelevant investigations and waste a great deal of time. You may never reach closure.

The deductive approach is always efficient. You are much less likely to collect data you don't need, and you will usually arrive at a solution quickly. The downfall of the deductive approach is that outcomes may be self-fulfilling, and you may miss new insights.

Inductive and deductive problem solving both have strong proponents. Some people shy away from the concept of developing a hypothesis and testing it. They disparage planning in favor of celebrating emergence and muddling through and focus on the artistic and emotional aspects of human thought. They believe that deductive problem solving is inherently narrow and rigid. Other people focus exclusively on the most efficient approach. They don't want to waste time exploring options or considering implications; they just want to solve the problem as quickly as possible. Neither extreme position is tenable. An integration of inductive and deductive thinking, of ideas and analysis, and of emotion and cognition will usually result in superior performance. The process set out in this book integrates inductive and deductive thinking, ideas and analysis, and emotion and cognition. It enables you to address organizational problems and opportunities efficiently and creatively.

Designing Solutions for Your Business Problems describes the balance that is the key to success in problem solving: between speed and thoroughness, between creativity and practicality, between low cost and high quality. It explains how to achieve that balance: clarify intentions, reduce the time required for data collection, increase the validity of conclusions and decisions, and communicate more effectively.

The process is based on the premise that good solutions are designed; they aren't analyzed into existence, and they don't emerge on their own. By first developing a solid understanding of the organizational situation into which the solution must fit and keeping that understanding current throughout the problem-solving process, you ensure that the solution will work in the context of the organization in which it will be implemented. By making your logic transparent, you open your potential conclusions and solutions to legitimate debate based on facts and capabilities rather than intuition and politics. By considering and developing options rather than just presuming that a first hunch is the answer, you design the best possible solution.