Becker, James M.; Hahn, Carole L.

Wingspread Workbook for Educational Change Agents.


Johnson Foundation, Inc., Racine, Wis.; National Science Foundation, Washington, D.C.

SSEC-Pub-180

100p.; For a related document, see SO 008 823

Publications, Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302 (SSEC no. 180, $3.45 prepaid or purchase order)

MF-$0.76 Plus Postage. HC Not Available from EDRS.

*Change Agents; *Change Strategies; Communications; *Diffusion; Educational Change; *Educational Diagnosis; *Educational Innovation; Elementary Secondary Education; Evaluation; Guidelines; Innovation; Role Playing; Social Sciences; Symposia

One of two publications resulting from the National Seminar on the Diffusion of New Instructional Materials and Practices held at the Wingspread Conference Center in Racine, Wisconsin, in June 1973, this workbook is addressed to those who need help in creating and implementing educational diffusion plans. It contains a structured series of questions, and suggestions on how to get information to answer them. They are designed to help the innovator diagnose the nature of the idea or product to be introduced, own capabilities as a change agent, and potential areas for change in a school system. The potential areas for change could be the roles played by people, occasions for introducing changes, and kinds and channels of communications. The last part of the workbook suggests how all the information generated by the questions can be put together in a coherent action plan. An evaluation scheme and an extensive list of resources conclude the workbook. (Author/ND)
WINGSPREAD WORKBOOK
FOR
EDUCATIONAL CHANGE AGENTS

By:

James M. Becker, Director, Social Studies Diffusion Project, Indiana University

Carole L. Hahn, Assistant Professor, Division of Educational Studies, Emory University

SSEC Publication #180
Copyright 1975
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
The work reported herein was partially supported by grants from the National Science Foundation. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official U.S. Government position or policy.

Funds for the development of this book were provided by the Johnson Foundation and the National Science Foundation.

Sponsors of the Seminar on which this book is based were:

The National Council for the Social Studies
The Committee on Pre-collegiate Education of the American Political Science Association
The Social Studies Development Center at Indiana University
The Social Science Education Consortium, Inc.
# TABLE OF CONTENTS

Preface .......................................................... i
Acknowledgements ................................................. iii
Participants in Wingspread Conference ......................... v

Part I: Overview of the Workbook ................................ 1

Chapter 1: Introduction ............................................ 3
  Change in Schools ............................................. 3
  The Conference ............................................... 3
  Assumptions about Change .................................... 5

Chapter 2: Using the Workbook ................................... 9
  Who Is This Workbook For? ..................................... 9
  Working Through the Workbook ............................... 9
  Beginning Your Plan .......................................... 11
  Organization of the Workbook ............................... 11

Part II: Diagnosis of the Intervention ........................... 15

Chapter 3: Diagnosing the Innovation ............................ 17
  Objectives, Content, and Strategies .......................... 18
  Physical Format ................................................ 20
  Durability and Cost ........................................... 22
  User Characteristics and Supports ........................... 24
  Costs and Benefits ............................................ 26

Chapter 4: Diagnosing the Change Agent (You!) .................. 27

Part III: Diagnosis of Potentials for Change in the System .. 29

Chapter 5: Defining Your System .................................. 31
  Defining the System .......................................... 31
  Assessing the Climate of the System ......................... 33

Chapter 6: Diagnosing Potentials in Functional Roles .......... 37
  Inside Advocate ............................................... 37
  Opinion Leader ............................................... 39
  Legitimizer .................................................... 40
  Combining Your Diagnoses: The Intervention and the ......... 41
    Functional Roles ............................................ 41

Chapter 7: Diagnosing Potentials in Job-Related Roles .......... 43
  Developers ..................................................... 43
This publication represents one of two documents coming out of the National Seminar on the Diffusion of New Instructional Materials and Practices held at the Wingspread Conference Center in Racine, Wisconsin, in June 1973. The Seminar was supported by the Johnson Foundation and the National Science Foundation. It was planned jointly by the Social Science Education Consortium, Inc., the National Council for the Social Studies, the Committee on Pre-Collegiate Education of the American Political Science Association, and the Social Studies Development Center at Indiana University.

This workbook is addressed to those who need help in creating and implementing educational diffusion plans. The other publication, the title of which has not yet been determined, is being written for those who control the resources that are used to diffuse and implement educational innovation: school-building and district-level administrators and policy makers, persons in state departments of education, and officials in federal agencies supporting education, such as the U.S. Office of Education, the National Science Foundation, and the National Institute of Education.

The Seminar, a two-day affair, was attended by over 50 social and natural scientists, college educators, classroom teachers, state and federal program officers engaged in supporting the development and diffusion of new curricula, public school administrators, curriculum materials developers, and publishers. The plan for the Seminar was to tap the knowledge of these resource persons regarding their experience in efforts to diffuse educational innovation. It was not an effort to bring together research findings from the literature on diffusion. Those concerned with these efforts at the Institute for Social Research at Ann Arbor, Michigan, and elsewhere have done an excellent job in reporting, categorizing, and analyzing empirical studies. (See, for instance, Havelock et al. 1971.) The Seminar participants took part in a series of small- and large-group discussions that were structured to bring out generalizations about diffusion based on their experiences, relate those generalizations where appropriate to research findings, and translate the generalizations into practical suggestions for people working for change in
The authors and staff came well armed with posting paper and felt pens, recorders, ditto masters, and index cards so that all relevant ideas and examples could be retrieved. Following the Seminar, the authors went to work on converting the discussions into a useable, useful format for practicing change agents. This workbook is the product of that effort.

W. Williams Stevens, Jr.

January 1975
ACKNOWLEDGMENTS

The real authors of this workbook are the Seminar participants, who contributed their ideas won from long, hard experience in the field. Their names are given on the following pages. Our greatest thanks is due them.

We would also like to thank W. Williams Stevens, Jr., Lee Anderson, and Merrill Hartshorn, the co-directors, who not only put the Seminar together but, afterward, spent many hours with us "noodling through" the design of the workbook and critiquing our efforts. Irving Morrissett and Karen Wiley of the Consortium and Henry Halsted of the Johnson Foundation also contributed valuable criticisms of early drafts. Karen Wiley edited the manuscript and it was typed and prepared for production by Celeste Fraser.

We would like to note that many of the reviewers' suggestions for changes in the later drafts of the manuscript have not yet been incorporated. We hope to be able to do a major revision of the workbook within the next year, using these suggestions as well as feedback we receive from workbook users (see the feedback form at the end of the workbook).

JB and CH
January 1975
NATIONAL SEMINAR ON THE DIFFUSION OF NEW
INSTRUCTIONAL MATERIALS AND PRACTICES

Wingspread Conference Center
Racine, Wisconsin
June 1, 2, 3, 1973

CO-DIRECTORS

Lee Anderson, Co-Director, American Political Science Association's Political Science Education Projects
Professor of Political Science, Northwestern University

James M. Becker, Director, Diffusion Project, Social Studies Development Center, Indiana University

Merrill F. Hartshorn, Executive Secretary, National Council for the Social Studies

W. Williams Stevens, Jr., Associate Director, Social Science Education Consortium, Inc.

PARTICIPANTS

Douglas Alder, Associate Director, Instructional Development, Utah State University

Dorothy Arnof, Assistant Vice President and Executive Editor, School Division, The Macmillan Company

Kathryn Bloom, Director, Arts in Education Program, The JHR III Fund

Ernest Burman, Project Director, Individualized Science Instructional System, Florida State University

Richard O. Carlson, Professor, Center for the Advanced Study of Educational Administration, University of Oregon

John A. Carpenter, Intercultural Education Specialist, Institute of International Studies, U.S. Office of Education

Thomas D. Clemens, Acting Director, Dissemination Task Force, National Institute of Education

Robert B. Davis, Director, Curriculum Laboratory University of Illinois

James Eckenrod, Consultant, Biological Sciences Curriculum Study, University of Colorado

Arthur W. Foshay, Professor of Education, Teachers College, Columbia University

Walter L. Gillespie, Head, Instructional Improvement Implementation Section, Division of Pre-College Education in Science, National Science Foundation

Emily Girault, Associate Professor, Graduate School of Education, University of Pennsylvania

John D. Haas, Director, Center for Education in the Social Sciences, University of Colorado

Carole Hahn, Coordinator, Social Studies, Indiana University

H. Mike Hartoonian, Social Studies Specialist, Wisconsin State Department of Public Instruction

Howard J. Hausman, Division Director, Division of Pre-College Education in Science, National Science Foundation

Suzanne Wiggins Helburn, Professor of Economics, University of Colorado

Leonard Hughes, Director, Bio-Medical Interdisciplinary Curriculum Project

Alan Humphreys, Associate Professor of Elementary Education, University of Minnesota

Paul DeHart Hurd, Professor Emeritus, School of Education, Stanford University

Jean B. Intermaggio, Program Manager, Materials and Instruction Development Section, Pre-College Education in Science, National Science Foundation

Charles C. Jung, Coordinator, Northwest Regional Educational Laboratory, Improving Teaching Competencies Program

Edith King, Professor of Education, University of Denver

Mark M. Krug, Professor, Graduate School of Education, University of Chicago

J. David Lockward, Director, International Clearinghouse on Science and Mathematics Curriculum Development, Science Teaching Center, University of Maryland

Earle Lomon, Director, Unified Science and Mathematics Projects, Education Development Center

Edwin Mansfield, Professor of Economics, University of Pennsylvania

Gerald W. Marker, Co-Director, Social Studies Field Agent Training Program, Indiana University

Howard Mehlinger, Director, Social Studies Development Center, Indiana University
John P. Neal, Director, Secondary Social Sciences Department, Ginn and Company

Dennan Reilley, Director, The Community School, West Hartford Public Schools

Robert E. Rieck, Associate Dean, College of Agricultural and Life Sciences, University of Wisconsin

C. Frederick Risinger, Department Chairman, Social Studies, Lake Park High School

Everett Rogers, Professor of Communication, Michigan State University

Nina L. Ronshausen, Director, Math Tutorial Project, Indiana University

Michael Scriven, Professor of Philosophy, University of California

George Springer, Professor of Mathematics, Indiana University

Herbert Thier, Assistant Director, Science Curriculum Improvement Study, Lawrence Hall of Science, University of California

Alan Tom, Professor, Graduate Institute of Education, Washington University

Peter H. Woods, Assistant Director for Humanities, The Rockefeller Foundation

Stanley P. Wronski, Professor, Institute for International Studies, College of Education, Michigan State University

STAFF

James E. Davis, Assistant Director, Social Science Education Consortium

Robert S. Fox, Director, ERIC/ChESS

Irving Morrissett, Executive Director, Social Science Education Consortium

Ellen Schultheis, Administrative Assistant, Social Science Education Consortium

Karen B. Wiley, Staff Associate, Social Science Education Consortium
PART I
OVERVIEW OF THE WORKBOOK
Chapter 2
INTRODUCTION

Change in Schools

Today schools are frequently taken to task for their failure to deal with racism, sexism, and poverty. Schools are denounced by students and social critics alike for their lack of relevance to the problems and life situations facing us. Some critics have advocated "deschooling" society and others demand educators be held accountable to the public for demonstrable student learning.

Pleas for change, however, have not been accompanied by practical suggestions on how to accomplish these goals. School systems have received little help in developing methods of successfully choosing, trying out, and implementing new educational materials and practices. There is a considerable body of research and theory on educational change, and there are some excellent summaries of such information. (See, for instance, Rogers and Shoemaker 1971; Havelock, Huher, and Zimmerman 1969; Havelock 1971; Miles 1964.) But these writings are generally more useful to the social scientist than to the educational practitioner. The gap between the researcher/developer and the practitioner is especially evident in discussions of how schools become aware of, decide to try, and adopt, adapt, or reject new materials and practices.

This workbook represents an attempt to reduce this gap by detailing effective and appropriate ways of introducing and maintaining new products, practices, and programs in the schools. It is based on the premise that the new ideas growing out of research and development will have little positive impact until more school personnel are aware of them, are willing and able to try them, and are skilled in creating conditions that make likely their implementation.

The Conference

Much of the data and many of the insights presented here stem from discussions held at the National Seminar on the Diffusion of New Instructional Materials and Practices held at Wingspread in Racine, Wisconsin, from June 1-3, 1973. The Seminar provided an opportunity to tap the
rich and varied experience of many educators who had run workshops, developed new materials and teaching strategies, and been involved in efforts to diffuse materials and practices. This workbook includes generalizations about change and a great variety of practical suggestions and recommendations generated by the participants. Some of these are worth mentioning at this point, not only because they demonstrate the wide range of opinions on and approaches to the subject of diffusion, but also because they underscore some of the difficulties inherent in the diffusion process.

Seminar participants voiced different conceptions of how to effectively introduce and maintain a particular change in schools. They also suggested different strategies for introducing and integrating innovations into a school setting. One conflict that quickly became apparent was between the desire for rapid diffusion and widespread use, on the one hand, and the belief that selection, trial, and adoption at the local level should be systematic and rational, proceeding at a deliberate pace. There was also considerable evidence that leaders in various groups and agencies in our complex, multi-level educational system often misunderstand or misconstrue each other's motivations and reactions. The directors of federally or state-funded projects, for example, expressed disappointment over what they saw as inappropriate use of their products by the schools or, worse still, no use at all. School authorities often saw projects or funding agencies as unresponsive and resented the projects' and agencies' seeming inability to see things in a local perspective. Project leaders, on the other hand, often showed little knowledge about or respect for school administration or curriculum practices. And many participants showed a tendency to belittle the role and motives of publishers, especially of their sales representatives.

Despite these differences in perspective, certain viewpoints and experiences seemed to be shared by many conference participants. In particular, conferees stressed the important relationship between the organization of the school and the success or failure of efforts to induce change. Such heretofore ignored factors as the pressures of day-to-day decisions, community traditions and expectations, and teachers' and administrators' perceptions of student and parent concerns were among the items cited by participants as critical in determining the extent,
timing, and nature of chance in the schools. These nitty-gritty realities of school operations, perhaps more than any other factors, are crucial to the manner in which schools decide how, when, and what to change—or, for that matter, whether to undertake changes in the first place.

The conference helped to crystallize other basic principles regarding educational innovation. Perhaps foremost among these is the notion that change must be rational in order to be effective. Innovation is not necessarily valuable to anyone unless it is accomplished with certain goals in mind and in a context that makes it meaningful. In the heat of battle, of course, this premise can easily be lost from sight. Funding patterns and demands for instant success, coupled with the lack of support for careful evaluation, may encourage those who wish to diffuse new practices or products to exploit whatever situations present themselves at the moment and leave to others the larger question of the impact of their tactics on the system. While superficially any change may appear to be an improvement over an outmoded system, such a stance may in fact prove to be self-defeating. Change should be purposeful and systematic; it should bear some demonstrable relation to societal trends and the changing needs of students. It is difficult to see how the arbitrary adoption and implementation of a particular product or program can build toward a rational selection process; nor are such tactics likely to increase the schools' capacity to deal with subsequent changes.

It is also important that diffusion be seen as part of a larger process of enabling educational consumers to make intelligent choices in terms of their situation and concerns. In a changing society committed to democratic decision-making, planning should not be reserved for a group of specialists or specialized groups; it should involve all the groups and individuals likely to be affected by the decisions. Such a procedure should have the effect of opening the schools up to a greater variety of options, while at the same time allowing those most directly affected by the outcome to help make the relevant choices.

Assumptions about Change

Before proceeding further, the authors wish to clarify the ideas on
which this workbook is based—the assumptions, principles, and definitions that collectively constitute their perspective on the nature and functioning of the diffusion process.

Diffusion is used here to mean the process whereby new materials and practices are disseminated and subsequently adopted and used by schools.

- While the interests, motives, and concerns of diffusers vary greatly, as do the situations in which they operate, it is nonetheless useful to offer both general guidelines and specific suggestions.
- In different situations and at different times, a variety of educational personnel play diffusion roles. Helping to strengthen and systematize these roles is an important way to aid the diffusion process.
- The suggestions made here are geared to any person playing a diffusion, or change-agent, role, no matter what his or her formal position may be.
- An important task for diffusers is demonstrating the appropriateness and effectiveness of a range of proposed innovations. Assessment instruments or procedures are essential in helping users identify needs and relate them to available resources.
- In order to help schools match needs with available resources, the diffuser needs to be informed about developments in several spheres, including social trends, relevant research and development efforts, and school organizations.
- Lack of knowledge about how schools actually function is a major obstacle in efforts to bring about changes.
- The norms, reward system, and general climate of the school are important but often overlooked factors in determining the fate of a proposed innovation.
- Specific changes will have little significance unless they relate to long-run efforts to transform the system.

The idea that change ought to be systematic and rational has consequences for both the would-be diffuser and for the school system as a
whole. Those seeking to innovate in education must have a map of the territory, some notion of desirable directions, and a sense of routes and channels available. For the schools, this means developing procedures and mechanisms for evaluating proposed innovations and for studying alternate ways of responding to opportunities for change. Ways need to be found to use existing incentives more effectively in the system, to assess more accurately what the schools are doing and how well they are doing it, and to serve better the needs of all who work in the schools--students, teachers, and administrators alike. It is our hope that this workbook can in some measure help to achieve those ends.
Chapter 2
USING THE WORKBOOK

Who Is This Workbook For?

A change agent is a person who serves as a communication link between two social systems (Rogers and Shoemaker 1971, p. 228). A sales representative or a curriculum supervisor may transmit information about a new program from the developer to the classroom teacher. A department head who learns about new materials at a convention and tells others in his or her department about the materials is acting as a change agent or diffuser.

This workbook is for people who have knowledge about, interest in, or commitment to an innovation* which they would like others to consider using. The workbook is to be used when one plays a diffusion role, regardless of whether that is 90 per cent of one's job or only an infrequent role.

Working Through the Workbook

This is not a book one simply reads. It is a book with which one should interact in the process of developing change strategies that are most appropriate for one's particular situation. It is our hope that this workbook will help to diffuse knowledge about diffusion in a form that is most useable to diffusers. For the most part, people learn to promote change through trial and error. The weakness in that method is that sometimes good changes are not made or poor ones are made because the actors in the adoption process are not aware of other diffusers' successes in similar situations.

At the Wingspread Seminar, experienced diffusers shared their knowledge with one another, developed generalizations based on their experiences, and suggested ways to organize and package that knowledge for use by other diffusers. The knowledge acquired from the distillation of experiences at Wingspread is presented here as sets of generalizations about

*Rogers and Shoemaker define "innovation" as an object, practice, or idea which is perceived as new by the individual (1971, p. 19).
educational change. Each set is followed by several questions and, usually, suggestions about how to obtain data to answer them. Each group of questions following a set of generalizations is introduced by an overall question, shown in italics. The overall question is followed by several specific questions. These questions are intended to guide the reader in applying those generalizations to his or her particular situation. The subsection below, "Beginning Your Plan," illustrates the workbook format. The user (note: user, not merely reader) of this workbook should read the narrative describing a set of generalizations and the questions following, then put the workbook down, reflect upon the implications for his/her situation, and write out responses to the questions in a notebook, on a tablet, or on large sheets of paper. These responses will then become part of his/her personal plan for change.

It is important to remember that, although questions are addressed broadly, they are meant to apply to you. When necessary, mentally rephrase questions to fit your situation and respond to the modified questions in your personal notes. In a few cases the issue may not be at all relevant to your diffusion work, so you should skip that section and move on to the next set of generalizations, questions, and responses.

We have been told by some who have tried out this workbook in draft versions that it works best for "objects"—products, such as curriculum materials. Thus, users who wish to diffuse practices and ideas that have not been converted into tangible form may have to do more mental rephrasing of questions than users who wish to diffuse products. In the future we hope to revise the workbook, incorporating suggestions on this aspect of the workbook, as well as others, from people who have used it. We would welcome your ideas.

This book will be most helpful to you if you can take several days or weeks to work through it. It will take time for you to collect data needed to develop your plan for change. In order to determine who opinion leaders are you may need to administer a questionnaire or make several phone calls. To assess the innovation's characteristics you may need to spend several hours going through materials at a curriculum library and talking with people who have already used the program.

We realize that change agents have many demands on their time, but we believe that a systematic diagnosis of the proposed change and of the
system that may adopt that change is crucial if schools are to successfully implement innovations which will help them to better achieve their goals.

Beginning Your Plan

To begin, it is assumed that the user (you) would like to stimulate some specific change. You know--more or less--what your goal is, and your task is to develop a plan for moving toward that goal. The starting point is now; the goal is some change you would like to see occur in the future.

The first step is to define and clarify your goal.

What is your goal?

2.1 What change would you like to see occur?

2.2 If adoption and implementation were successful, what would it look like? Write a clear description of a specific scene that would occur if your goal is met.

The question-and-answer format used above will be followed throughout the remainder of this workbook. Questions will be signalled by a number (the chapter number followed by a point and then the question number) and followed by a triangular flag with an "answer line," indicating to you that you should write a response in your own notebook. If you have not yet written out your answers to the above questions in your notebook, do so before you proceed. This workbook will be useful to you only if you develop your personal diagnosis and plan of action as you read.

Organization of the Workbook

Once you have jotted down your responses to the first set of questions, you should move on to Part II of the workbook and continue working through it systematically. We have organized the material on the assumption that change can move forward most smoothly and rationally if the change agent takes time to diagnose his or her situation before developing a plan of action. Thus, the workbook is designed to first guide
you through an inventory of the potentials and problems for change in your own situation; then, on the basis of the information gathered in this diagnostic stage, you will develop a step-by-step plan for implementing your innovation and monitoring the plan's effectiveness as you put it into action.

Parts II and III of the workbook focus on diagnosis. In Part II, you will diagnose your intervention in the system in which you will be working. The intervention consists of the proposed innovation (dealt with in Chapter 3) and your own skills and reasons for implementing it (dealt with in Chapter 4). Part III will help you to diagnose the potentials for change in the system itself. That system may be a single department, one school, a district, or an even wider area. You will define the system relevant to your innovation in Chapter 5. Chapters 6 and 7 in Part III focus on diagnosis of roles played by various persons in the system. Chapter 8 explores the significance of events and timing. Chapter 9 asks you to diagnose communication in the system.

In Part IV, you will pull together the information acquired in your diagnoses to develop your plan of action and methods of monitoring its success as it is put into practice. Chapter 10 will guide you in laying out the plan, while Chapter 11 will give suggestions on how to obtain feedback on which to base modifications of your plan as you put it into action.

We have attempted to organize the material in "building block" fashion, so that your answers to early questions will prepare the ground for answering later questions and material developed in later questions is not necessary to responding to the early questions. However, you may find, from time to time, that you wish to return to an earlier question to modify your response in light of new thoughts stimulated by later questions. For instance, you may wish to modify the scenario you have described under "Beginning Your Plan" after working through later sections; you may find that your initial vision is unrealistic after considering conditions that exist in your system. You should feel free to let your developing ideas influence your earliest thoughts in this way, since the purpose of this workbook is to help you build an integrated, realistic diffusion plan that will work for your own unique situation.
At the end of the workbook you will find a list of selected resources—both organizations and written materials—that may provide helpful supports for your change efforts.

The last item in the workbook is a feedback form on the workbook itself. It asks for your evaluation of the usefulness and clarity of the book. The information from this form will be used by us in revising the workbook. We would greatly appreciate your comments.
PART II
DIAGNOSIS OF THE INTERVENTION
Chapter 3
DIAGNOSING THE INNOVATION

One might begin a diagnosis of his or her situation by focusing on either the target system or the intervention. We suggest beginning with a diagnosis of the intervention—the proposed innovation and the change agent (yourself). You will work through a diagnosis of the innovation in this chapter and then examine your skills and reasons for advocating change in Chapter 4. In Part III, you will shift your attention to diagnosing the system you wish to change.

While diagnosing the innovation, it is important to keep two considerations in mind: the characteristics of the innovation itself and potential users' perceptions of the innovation.

First, you will want to be conscious of the characteristics of innovations that have traditionally contributed to their diffusion—for instance, low cost—and note whether the innovation you propose has those characteristics. If it has only a few such characteristics, it may be a high-risk innovation and therefore less readily accepted by the target system. You should not, however, let this dampen your enthusiasm (though such a condition should make your perspective on the task ahead of you more realistic). Also, you should not necessarily try to modify your proposed innovation into a mold of traditionally acceptable characteristics if such modification would mean sacrificing the essential improvements you hoped to accomplish through introducing the innovation.

As an example, multimedia kits and games were initially diffusion risks for a number of reasons—their high cost, their unorthodox instructional strategies, and so forth. But their development was important for increasing the range of choice in instructional approaches. Wing-spread Seminar participants were willing to share experiences about what they found to work in the past so that others would not "reinvent the wheel." However, they were emphatic that packaging something like last year's successful product would not necessarily improve education. It is important to understand how innovation characteristics such as size, format, and cost have influenced diffusion in the past; it is equally important to consider alternatives that might contribute to future improvement. What "worked" last year may not have been an "improvement"
at all; or it may have been an improvement at that time but would no longer be such. It is necessary to keep in mind that, for a variety of reasons, schools constantly change. Diffusers must be sensitive to social trends and circumstances that are likely to affect school programs. The energy crisis, the youth revolt, funding patterns, the accountability movement, and environmental concerns are among many such recent issues that have made last year's innovation inappropriate for this year's needs.

The second important consideration to keep in mind is that, while the objective characteristics of an innovation are important, even more important are the perceptions of potential adopters. Often "experts"—be they researchers, professors, or supervisors—believe a program is easy to use and low in cost. The individual mathematics teacher, however, may feel that the new approach is difficult to get used to and that there are added costs in time and energy expended in preparing lessons and in working with students on a one-to-one basis. It is the ultimate user's perception of the innovation, not the expert's, which will determine whether the innovation is institutionalized or discontinued after the initial trial. As you go on to diagnose the characteristics of the innovation you want to diffuse, consider how those characteristics might be perceived by decision makers and users of the innovation, not just how it is described by experts.

Objectives, Content, and Strategies

Potential adopters will want to know: What is the innovation? What does it do? How will it help me? How is it different in practice and in purpose from previous approaches? Potential adopters of educational innovations are concerned about whether an innovation will help them to better meet their goals in their particular situations. The change agent must, therefore, be sensitive to the potential user's situation, be able to describe the objectives, content, and strategies of the program in terms meaningful to the potential users, and be able to convey evaluative data on the extent to which the objectives have been met in situations similar to those of the potential user.

At this point you will need to stop and gather some data. In order
to answer the following questions, you will need to examine developers' reports, publishers' brochures, and teachers' guides and interview people who have used the program.

What would be the outcomes of using the innovation in your system?

3.1 What are the knowledge, skill, and attitude objectives of the program?

3.2 What content (subject-matter) is dealt with in the program? Does the content appear to "fit" reasonably well with the intended objectives of the program?

3.3 What teaching/learning strategies and styles are used in the program? Do these appear to "fit" reasonably well with the content and intended objectives of the program?

3.4 What evaluation data have been obtained on the degree to which the intended objectives have been met through classroom use of the program? What were the conditions under which the program was used successfully? unsuccessfully? Cite specific studies.

3.5 If classes in your system use this innovation, how will teacher and student behavior be similar to and different from teacher and student behavior in similar classes without the innovation?

3.6 To what extent are the objectives, content, and strategies of the innovation compatible with the needs and values of potential users in your system? Note which needs and values potential adopters have and how this particular innovation will and/or will not be compatible with those needs and values.

(You will probably want to add to your responses to the last question after you have finished your diagnosis of the system in Part III.)

Supplying potential adopters with evaluation data obtained from ac-
tual use of the program is important to short-term decision making and long-term capacity of the school to handle change. In order to make wise decisions, adopters need to know if an innovation will fit their needs. Evidence from previous use will help them to make that judgment. And, in the long run, getting in the habit of matching demonstrated effects of programs with the goals and objectives of the particular school will improve the school's ability to select from among alternatives those changes which will contribute to better—not simply different—conditions in that school.

Physical Format

The physical formats of innovations have been significant to their diffusion. In the elementary schools it has been the tradition to adopt complete series for reading, mathematics, and social studies. In secondary social studies, however, there has been rapid diffusion of units that can be "plugged in" to various course outlines. Elementary school decision makers select programs that are carefully sequenced for several years of work, whereas secondary school decision makers prefer modules that the teacher can combine with other materials to fit his or her own needs. Increased flexibility of curriculum has resulted in requests that the same program be packaged differently for year-long courses, semester courses, and mini-courses. Smaller packages are often adopted by a single teacher, whereas adoption of a larger series or multimedia program is usually a district-wide decision.

Many innovative materials bought by administrators sit unused on shelves and in closets because, when teachers try to use them, they find that they are too difficult to manage, either for the teacher or the students. Keeping track of pieces to games or maintaining discipline during a complicated activity may add to the difficulty of using new programs. Some "new science" and "new social studies" kits have various boxes and drawers to organize the bits and pieces and help reduce management problems.

If using a new curriculum package requires teachers to get access to community resources, the competition for such resources or the red tape they must cut through might not seem worth the effort to the
teachers. They may prefer to use the program that requires only an overhead projector, which is more accessible. Films are often used because they require little teacher preparation. However, costs in time and effort may be balanced by demonstrated effect. Adopters of a new bio-medical curriculum and of inservice packages for staff development were willing to work additional hours because the positive outcomes were perceived as worth the costs to them.

How will the physical format of the innovation affect its use?

3.7 How is the program packaged? If it includes a text, is it hard or soft covered? Does it have a multimedia component? Does it contain all the components and resources necessary for its implementation or give clear listings of components and resources that teachers must obtain on their own? Does it contain numerous separate components that must be managed simultaneously? If so, are there clear instructions for teachers and students on how to use the components?

3.8 Does the program require special equipment or space arrangements for implementation?

3.9 Is the program divided into separate modules that can be used in variable sequences or even as stand-alone units or lessons? Or is it packaged as a single, continuous program, the success of which depends on using it in a particular sequence?

3.10 What total amount of instructional time is appropriate to the innovation? What length of class period are individual lessons designed for? Can they be adjusted to fit into longer or shorter periods?

3.11 What sorts of student groupings is the program designed for—individualized instruction? small-group work? full-class work? combinations?

3.12 What are the advantages of the physical format of the program? Why is it packaged as it is? How does the packaging help the achievement of the program's objectives?
3.13 What are the disadvantages of the physical format of the program? What are the limits to its flexible use? Can it be used by anyone, at any time, in any place?

3.14 Is there a need in your situation for a particular format? For instance, do adoption rules require hardcover books, or does your system need materials or equipment appropriate for an open-space building, or materials to fit a one-semester course, or materials for individualized instruction? Does your innovation fit the needs in your particular situation?

You can obtain data on these kinds of questions from the developer or publisher, from articles about the material, from evaluation reports, from questionnaires sent to pilot schools, or from interviews with teachers who have used the material.

Durability and Cost

Cost is closely associated with the physical format of the innovation and is also related to probability of adoption. For instance, the durability of packaging influences cost and adoption. Innovations which require the adopter to continually replace parts do not diffuse as rapidly as those without such a cost. Laminated plastic sheets, transparencies, and ditto masters, which can be used more than once, may be preferable to student workbooks, which are not reusable. Extreme durability, however, may not be necessary or even desirable. Hardback textbooks that can be used for ten years may be outdated long before they are replaced. The less durable booklets of some new social studies projects have diffused quite successfully. Teachers and students are willing to re-staple and re-glue materials they like or keep some copies for use in a resource center, and school systems are willing to replace partial sets of materials they believe to be worthwhile.

All school districts have limited financial resources and must consider the costs in adopting new programs. The Seminar participants pointed out that, when federal, state, or other outside monies could be used to purchase particular "new science" and "new math" programs, those innovations were more rapidly diffused. Some of the "new social studies"
media packages have diffused slowly because of the large perceived initial costs. The most widely diffused program of the "new social studies" is packaged in booklets that cost less than 50 cents per student. Schools purchase several copies of one unit and, later, several copies of another. They are more hesitant to make a large initial outlay for a multimedia program.

Before planning a strategy for diffusion, you need to examine the costs of the innovation—both the initial outlay required and the long-run replacement costs that can be expected. Again, you can obtain data from the developers, publishers, evaluation reports, and the reports of users to answer the following questions. For the last two questions you will want to talk with someone in your system who knows about sources of money for purchase of new programs.

How is the cost of the innovation related to its potential adoption by your system?

3.15 What is the initial outlay of money required for purchase? Estimate the figure as closely as you can.

3.16 What are the continuing costs, including costs of consumable and less durable parts? Estimate the figure based on how many components will need replacing, how often, at what cost.

3.17 What is the per pupil cost for first use? What is the per pupil cost over the first five years of use?

3.18 What resources, equipment, and facilities are needed to use and store the components of the program and how much will these cost?

3.19 What support such as teacher training and paraprofessionals are needed? Are they already available or will they require additional outlays of money?

3.20 What are some ways in which some of the above costs might be reduced without injury to the goals you hope to accomplish through the program? Can the innovation be shared by several classes in a given year?
How can use of the innovation be maximized for minimum long-term per pupil cost?

3.21 What are the likely cumulative, overall costs? (You will need to consider these in light of the likely benefits in the last section of this chapter.)

3.22 Overall, does the cost of the innovation appear to be excessive, about average, or a "real bargain" from the perspective of what your system usually spends on programs? On the basis of dollar costs, would you expect to have to work very hard or only a little bit to persuade your system to invest in the innovation?

3.23 What are the possible sources of money that your system could use to purchase the innovation?

User Characteristics and Supports

New programs often contain non-money costs to adopters. The risk of simply trying something new is a cost. If, in addition to that risk, an innovation puts increased demands on a teacher, it may be considered "too costly" in this sense and be discontinued. Such intangible (difficult to quantify) costs must also be considered.

Some of these intangible costs are related to the physical format of the program. These have been mentioned above in the section on format—for instance, the "hassle" of managing numerous pieces in a game. Other intangible costs are associated with the "fit" between substance of the program—its content and strategies—and the characteristics of the intended users. For example, some new programs have been dropped after initial trial because they require the teacher to master difficult new teaching strategies. If a new program is quite unlike anything teachers have used before, a detailed teacher's guide may help in sorting out confusing, unfamiliar procedures and, thus, contribute to successful diffusion. With precise daily instructions, teachers may feel more secure during try-outs of the materials. On the other hand, the more structured the program is, the more difficult it will be for teachers to adapt it to fit their particular needs. During implementation,
consulting services and continued team work among those trying out and promoting the innovation can help to work out some of the problems of allowing for flexible adaptation, on the one hand, and structuring complex, unfamiliar territory, on the other.

You should ask the following questions in regard to user characteristics and supports that may affect the implementation of the proposed innovation.

What user characteristics are necessary to successful implementation of the program and how can they be developed or supported?

3.24 What teacher skills and knowledge are needed to use the innovative program successfully? What new and different skills or steps do teachers need to master in order for the innovation to work well?

3.25 How might teachers acquire the new skills and knowledge necessary for the program? Are there supports for implementation, like a teacher's guide, teacher training programs, team support strategies, or consulting services? To what extent can the program be used without any special supports?

3.26 Are there ways suggested for teachers and others involved in implementation to obtain feedback as they go along, so that they can adjust the program during the process of implementation?

3.27 What knowledge, skills, and interests should students possess to be able to use the program successfully? Are there any types of students for whom the program is definitely not recommended? Especially recommended?

3.28 Are ways suggested to adapt the program to fit special student needs and interests? Adapt the program to higher or lower knowledge and skill levels?

3.29 Does the program contain potentially controversial material, and, if so, are ways of dealing with such controversy suggested?
3.30 Is the program compatible with the characteristics of teachers, students, and community members in your system? If not, are supports offered for dealing with incompatibilities in skills, knowledge, interests, and values? Further, what will be the intangible costs—in time, energy, frustration, etc.—of employing these supports in order to make the program compatible?

Costs and Benefits

In the final analysis, the potential adopters want to know, is this new product enough better than what I have been using to warrant the costs in time, money, convenience, and possible risks involved in adopting the program. That is, are the likely benefits worth the costs?

Once you have completed diagnosis of the innovation, you should consider that balance between costs and benefits to the potential adopters.

3.31 In what ways could you help the potential adopters to consider all of the aspects of the innovation: to rationally weigh the costs and benefits; to decide whether to adopt, adapt, or reject the innovation; to consider ways to reduce costs of the innovation if it is tried; and to search for other alternatives if the innovation is rejected?

It is helpful just to list the benefits and costs in parallel columns. It is still more helpful if you can help the potential user put some relative weights on the various benefits and costs. Which benefits and which costs are very large or important? of medium size or importance? of relatively little size or importance?

The values of the potential adopters—their visions or images of a desired state of affairs—often greatly influence their decisions about the costs and benefits. While you, as the change agent, can help potential adopters list and weight the benefits and costs, the importance or weight assigned to each cost and benefit must ultimately be the ones they, not you, perceive.
Everyone involved in the educational process plays a role in educational change. Those who are designated to play special roles in creating awareness of new ideas, encouraging experimentation and urging trial and adoption of innovations are often referred to as change agents.

Among the duties and responsibilities assumed by persons playing such special roles are: (1) keeping up with proposals, experimental efforts and programs seeking to foster educational change; (2) identifying, initiating, and implementing selected innovations; (3) evaluating the impact of their adoption; and (4) disseminating information about results.

Change agents are most likely to be helpful when they are a part of the system they are seeking to change. Understanding of particular situations and of specific needs of others in the system increases the likelihood that change agents will succeed. Being on hand to provide advice and support for teachers as they seek to implement an innovation also increases the likelihood of success.

Acceptance by other members of the system is essential if a change agent is to be effective. Establishing rapport and credibility generally take time and a demonstrated interest in the concerns of others who seek to meet the challenges of change.

A change agent should view him/herself not just as a salesperson advocating the adoption of a particular product but as a consumer advocate and consumer educator. Successful change agents should provide better understanding of what happens when innovations are introduced into a system so that all members of the system can become self-conscious actors rather than merely reactors in the educational process. This workbook focuses its guiding questions on developing plans for diffusing a particular innovation. This is a device for helping the change agent to clarify his/her thinking about the change process in a particular situation. But he/she should always keep in mind that the primary object of change efforts is not simply "selling" one particular innovation. It is helping to find ways of improving the system; and this involves attending carefully to the needs of potential adopters and help-
ing them to become sophisticated, thoughtful selectors.

If one wants to promote change in an educational system, he/she should examine his/her skills and reasons for promoting that change. The questions below should help you do this in your own particular case.

What is your role in the change?

4.1 What are your reasons for wanting to promote change in this particular situation? Which of your reasons are the most important to you? least important?

4.2 What do various members of the target system perceive your role to be? Does your role in relation to this innovation "fit" with this perception of what you ought to be doing?

4.3 What skills, knowledge, and values do you possess which are relevant to the diffusion of this particular innovation and to change in the system in general?

4.4 Describe your personal style and how it is perceived by others with whom you will come in contact as you carry out your plan for change.

4.5 Are you in a key position to influence decisions about this particular innovation?

4.6 How much time, effort, pressure, authority, and influence will be needed? Do you have these?

4.7 Are the results likely to be worth the effort to you?

4.8 Finally, read what you have written in response to this section and reflect upon the implications. How should you use this knowledge?
PART III
DIAGNOSIS OF POTENTIALS FOR CHANGE
IN THE SYSTEM
Chapter 5

DEFINING YOUR SYSTEM

In this part of the workbook you will diagnose potentials for change in the system in which you are working. This chapter will focus on defining the system within which you will be working and assessing the overall climate for change in that system. The following two chapters will then guide you in considering the effects that the roles played by various actors in your system can possibly have on the proposed change. Chapter 6 deals with "functional roles" and Chapter 7 with "job-related roles." In Chapter 8, you will examine occasions for and timing of diffusion efforts; and in Chapter 9, you will diagnose communication within the system.

Defining the System

"System" is usually defined as a set of two or more interacting parts, distinguished from the "environment" which surrounds it. Things as widely varied as a pair of scissors, an engine, a human being, and a school district can be thought of as systems. The notion of system is an abstraction, which separates certain elements out from the fullness of reality. A system is not a complete replication of reality. One conceptualizes a system in order to help analyze the factors relevant to understanding and dealing with a particular problem. What may be the appropriate concept of system for one problem may be quite inadequate for another problem.

For instance, consider a clogged sink. One's first reaction to this domestic difficulty is to grab the Draino or the plumber's helper; one envisions merely a drain that is clogged with grease and food bits. But this does not do the trick, so a call to the plumber is in order. The image now enlarges the system a bit--perhaps it is time for the rooter to go to work on your drain pipes. But the plumber is unable to clear up the problem, so he begins to look around outside. He sees the truck of a competing plumber outside your neighbor's house and begins to suspect that the problem is a larger one. The system enlarges once more when you find there is a problem in the neighborhood's sewage lines.
It is important for you to consider what notion of system will be relevant to your own change efforts. You should try to determine what the "boundaries" of your "system" will be—what and whom you should consider to be "inside" and "outside" your system. Are the problem and the proposed solution (innovation) limited to just your own classroom, the social studies department, the whole school, the entire district, several districts? And you should think about which people constitute the "interacting parts" of the system: whom are you trying to change, who must become involved in that effort, who could be helpful in that effort?

The following questions are designed to help you begin thinking about the extent and nature of the system on which you will focus. This is only a first "cut" at defining your system; subsequent chapters will help you clarify and refine your definition of boundaries and interacting participants.

What are the dimensions of the system relevant to your proposed innovation?

5.1 Who are the people immediately involved in the problem you are trying to solve? Who are the people you would hope would be affected by the innovation you are proposing—students? teachers? administrative staff? of the school? of the district?

5.2 Who are other people who must become involved if the innovation is to succeed? For instance, even if you determine in 5.1 above that the people to be affected are primarily the students and the faculty in the science department of your school, the "system" relevant to bringing about your change may be wider than this. You may have to involve the principal, or it may be necessary to involve the entire faculty, or perhaps you may even have to involve the school board and parents.

5.3 Will the innovation require budgetary decisions and at what level must those decisions be made?

5.4 Will the innovation require policy changes and at what level must such decisions be made?

5.5 What people can be considered "outside" your system—
Assessing the Climate of the System

Before you proceed further in examining the nature of the system in which you plan to work, you may want to take some time to assess the overall climate for change in that system. We do not consider this an absolutely necessary step in developing your change plan; however, the questions that follow will help you to focus on "the big picture" before diving into an investigation of the specific issues you face. It is our hope that users of this workbook will be as interested in improving the overall climate for change in their systems as they are in instituting particular innovations. This section should guide your thinking about some of the conditions that can provide a general tenor of openness to new ideas in schools. It should, as well, provide you with a jumping off point for your consideration of the potentials for implementing your own particular innovation.

All systems have a structure and dynamic of their own. Social systems, in contrast to the solar system for instance, are moved by people and are therefore less stable and predictable. They are complex: the interaction of a great many elements enables them to maintain a rather stable equilibrium. Social organizations such as schools have many mechanisms for maintaining equilibrium, including established rules, norms, ideologies, and rewards. Yet to the extent that these elements help maintain the system, they can also hinder or frustrate efforts to initiate change. The diffuser who is trying to calculate the change potential of a school must therefore appraise the basic internal power and decision structure: the way new jobs are defined and assigned, the way rules are procedures are formulated and enforced, the way the budget is...
allocated. At the same time, the diffuser needs to look at the school's external relationships: its ties to colleges and universities, accrediting agencies, state education agencies, testing groups, and producers of instructional materials and hardware. And finally, the diffuser has to assess overall funding patterns, especially when these are tied to widely publicized nationwide or statewide efforts. All of these factors, while important or even vital to the functioning of the system, can be barriers to innovation (although, under some conditions, they may be favorable to innovation).

No system, of course, is wholly impervious to change, and the schools do exhibit a capacity for regeneration. Information or new ideas may be generated from within or may stem from the outside as a result of interaction with other systems. Depending on the climate for change, these new ideas may be rejected or, on the contrary, may spark efforts to restructure existing patterns or practices, as when technological changes affect career opportunities or demands.

The personalities of the individuals who operate and work in the schools may on occasion be major obstacles to change. Judging from a review of the available literature, however, as well as the accumulated experience of the authors and numerous conference participants, the importance of individual personalities would seem to be overrated. Much more relevant to the change process is the complex structure and functioning of the school as a system; and more detrimental than any obdurate personality is ignorance on the part of the would-be diffuser of how this system actually operates. Sarason's (1971, p. 231) excellent analysis of life in schools seems to support this notion. His discussion of apparent and real obstacles to change in schools leads to the conclusion that outside change agents often have little insight into the culture in which change is to occur.

The climate for change—the processes and procedures for dealing with proposed innovations, the morale and competence of the staff, and the quality of educational programs—varies greatly from school to school. In some schools, teachers share in making decisions; in others, they are told what the central office has decided they should do. In some faculties, there is much discussion about classroom practices and
techniques; in others, teachers keep their ideas largely to themselves. Some schools or departments have meetings and procedures designed to deal with problems as they arise; others have no systematic way of handling difficulties. In some schools, teachers are always trying something new, while in others there is a tendency not to "rock the boat."

All of this suggests that, to succeed inside a complex social organization, the innovator must consider a variety of factors and processes: the amount of sharing, the adequacy of information, the nature of communication, the events or occasions surrounding the making of choices or crucial decisions regarding new programs—in short, all the elements that combine to form the climate for change.*

The school climate influences the thinking and feelings of individuals, thus encouraging or discouraging receptivity to change. A number of instruments dealing with school environment are available. Many are reviewed in Measuring Human Behavior by Dale Lake, Matthew B. Miles, and Ralph B. Earle, Jr. (New York: Teacher's College Press, 1973).

The questions below should help to assess the school climate.

5.6 How are decisions usually made within the school (majority rule, consensus, authority)?

5.7 Do a few individuals or blocs tend to dominate the decision making?

5.8 To what extent are students, teachers, parents involved in decision making regarding curriculum? new programs? school policies?

5.9 Does the building principal have important decision making power in regard to curriculum and budgetary matters?

*A valuable resource, including a variety of instruments for measuring a school system's capacity for self-renewal, is Diagnosing Professional Climate of Schools, Robert Fox et al., NTL Learning Resources Corp., Fairfax, Virginia, 1973.
5.10 How frequently do administrators, teachers, and students participate together in major non-academic activities of the school?

5.11 Do administrators visit classes for other than teacher evaluation?

5.12 How and how frequently do teachers share their professional concerns and interests?

5.13 What encouragement is given those who experiment or try innovative programs?

5.14 Are leadership positions, formal and informal, open to all members of the professional staff?

5.15 Do teachers feel free to propose new programs to the faculty or administration?

5.16 Are faculty encouraged to make criticisms and suggestions for improving the school?

5.17 Are disagreements and conflicts generally aired openly and considered to be a normal part of school life?
Chapter 6
DIAGNOSING POTENTIALS IN FUNCTIONAL ROLES

Individuals in many different positions in the system have opportunities to facilitate, to impede, or to ignore proposed changes. One strong influence on their decisions to act one way or another is expectations about their role or roles within the system. (Other important influences are individual dispositions and situational factors.) The ability to assess potentials in these roles can contribute much to a successful change effort.

There are two ways of classifying roles that are helpful to a change agent. One way is to look at individuals in terms of the function they perform in the diffusion process: Do they initiate ideas in a system? Do they influence other people's opinions? Do they need to give their approval in order for the innovation to be considered? Are they the first or the last to adopt new ideas? Another way is to view roles as jobs people do ("formal" positions they hold) that enable them to influence change: Who are the teachers, administrators, consultants, developers, and others who make decisions about the adoption and implementation of innovations?

Job-related roles will be dealt with in the next chapter. In this chapter you will analyze the functional roles played by people in your system. Functional roles are informal roles. People are not given titles and job descriptions for playing roles such as "opinion leader." Functional roles are situational roles in that a person may be an opinion leader in regard to the adoption of one innovation but a follower in other situations. Three functional roles that can be most significant for a diffuser are inside advocate, opinion leader, and legitimizer.*

Inside Advocate

In a study of the adoption of programs for gifted children, House (1970) emphasized that the presence of an inside advocate was important to the adoption of innovations. He found that members of a system rarely

*Rogers and Shoemaker (1971) have reported further on other functional roles.
come together to agree on goals, define problems, and seek solutions. Rather, a person within the system usually sees it in his or her best interest for the system to adopt an innovation and then moves the idea through the appropriate channels. Unfortunately, potential inside advocates often do not know that innovations exist to meet their needs or that others may be trying to adopt similar innovations, and outside change agents do not know which people are potential advocates within a particular system. Linking insiders and outsiders, as well as bringing inside advocates together, can be crucial.

*How might potential advocates help to bring about change?*

6.1 Which people in your system are potential inside advocates? Ask several people in the system if they know of anyone in the system who has shown interest in the innovation or in the problem it addresses. For instance, if you would like a school district to consider a new reading or social studies series, ask a few teachers in the system if anyone in their school has mentioned the series or expressed a desire for a new approach to reading or social studies. And, more directly, ask individuals if they have such an interest. As you name the potential advocates, cite the evidence for believing they might be advocates.

6.2 To what extent are the inside advocates respected, trusted, and accepted by various members of the system? You may obtain that information from reports of a few people or from conversations with everyone involved. They can give you both self-reports and information about others. As you are gathering data to determine who are potential advocates, note who looks to that person for advice, ideas, or leadership. Which people seem open to suggestions from the advocate? What is the position of the advocate in both formal and informal networks? Is he or she someone whose approval is officially required? Is he or she an opinion leader in the informal social system? Does he/she have the ear of people in those other roles?

6.3 In what ways can the inside advocates help to bring about the change? How can you make contact with them and get their help?
Opinion Leader

A second functional role of great importance to change is that of an opinion leader. Jwaideh and Marker have described opinion leaders as the persons who are able to influence informally the attitudes or overt behaviors of other members of a social system. These leaders often provide information and advice about innovations to many other members. Opinion leadership is a type of informal leadership that is not necessarily related to a person's formal status in the system, although formal leaders may in some cases function also as opinion leaders.

Opinion leaders may hold a leadership role on the basis of their expertise or technical competence, their social accessibility, and their conformity to the norms of their system. Because of these characteristics, they often serve as models for the behavior of their followers with regard to innovations. The opinion leaders in a modern social system tend to be innovative, whereas the opinion leaders in a traditional social system often are non-innovative (Jwaideh and Marker 1973, p. 25).

It is important for change agents to realize that opinion leaders are accepted as "one of us" by members of their social system and that they follow the norms of that system. Opinion leaders are not likely to deviate much from tradition and do not take great risks in trying new things. In fact, the person who is first to try innovations may be rejected by members of his/her social system as a deviate, and a change agent's close identification with that innovator could hinder his or her efforts to bring about change.

To what extent might opinion leaders contribute to change?

6.4 Who are the opinion leaders in the system? Self-reports, reports by all members, and reports from key informants about who turns to whom for ideas and opinions will help you to identify opinion leaders. At faculty meetings or principal's meetings and in the teacher's lounge or lunchroom you may notice whose opinions seem to be respected and considered carefully by others. In one-to-one conversations with college professors or curriculum supervisors, you can ask questions to determine from whom they get ideas and information and whose opinions about new developments they respect.
6.5 Who seems to be the most and the least likely to follow the opinion leader? You can obtain this data as you are identifying opinion leaders.

6.6 To what degree are the opinion leaders receptive of the innovation? You may ask them directly or indirectly or obtain that information from key informants.

6.7 What are some interests, concerns and values of the opinion leaders that are relevant to the proposed change? For example, did someone mention that the opinion leader is especially concerned about multi-ethnic content, curriculum materials for slow or gifted students, maintaining discipline, or reducing demands on teacher time? Because opinion leaders influence others, it is especially important that they see the innovation as being compatible with their own needs, interests, and values. Opinion leaders can be influential in preventing the adoption of innovations which are incompatible with their values.

Legitimizer

A third functional role to which change agents should be sensitive is that of legitimizer. Rogers and Shoemaker explain that legitimizers are people who "give sanction, justification, the license to act" (1971, p. 280). They tend to have both status and power in a social system. They generally play a passive role in the decision-making process, but they can kill an idea if they are not consulted. If a change agent ignores or overlooks a legitimizer, he/she may later find that consideration of the innovation has been dropped. If a sales representative wants to talk with mathematics department heads about a new program, he or she may need to check with the mathematics supervisor before making further contacts. Before inviting parents to an informational meeting about a new social studies program, a teacher may need to get the approval of the school principal.

How might legitimizers foster the adoption of the innovation?

6.8 Who is (are) the legitimizer(s) in the system? As with the previous questions about inside advocates and opinion leaders, you will need to talk to people in the sys-
How can the legitimizer(s) help or hinder your change efforts?

How might you persuade them to help you?

Combining Your Diagnoses: The Intervention and the Functional Roles

Havelock (1971) has emphasized the need for linkages among roles and among whole social systems. Both the user and the resource system need to be familiar with each other's needs, resources, and viewpoints. The Northwest Regional Laboratory's training packages for consultants include training in diagnosis of the client system and one's self as a linker or resource person.

Whether one is a developer who wants to diffuse a particular product, a teacher who would like his or her school to adopt a new foreign language program, or a consultant who wants to facilitate problem solving in a client system, it is important to assess the potential in one's own role and in other roles relevant to the situation.

Now you should re-examine your diagnosis of the intervention—the innovation and your own role—in light of what you know about functional roles in your system. (You will do the same thing at the end of the following chapter, relating the intervention and the job-related roles in your system.)

Read over your analysis of the innovation and list which characteristics will be important to particular people you have identified in functional roles. It might be helpful to list the relevant characteristics of the innovation down one side of the paper and the people to whom each characteristic will be important opposite the characteristic, down the other side of the paper.

Where do you fit into the constellation of functional roles? Can you play the role of opinion leader, legitimizer, or inside advocate yourself? Or must you
rely on others to play these roles? What is your relationship to the opinion leaders, legitimizers, and inside advocates that are likely to be involved in the process of implementing your innovation?
Chapter 7
DIAGNOSING POTENTIALS IN JOB-RELATED ROLES

In addition to the functional roles of inside advocate, opinion leader, and legitimizer, job-related roles offer potentials for change. These roles are formal, non-situational ones. When one accepts a job as teacher, he or she has a title with a job description. In school, at home, or at a football game, he or she is still a teacher. The participants at the Wingspread Conference discussed their experiences with the roles of curriculum developer, college professor, leader of a professional organization, official of a state department of education, supervisor or department head, administrator, teacher, student, parent or community member, publisher's representative, and special roles such as field agent.

It is important for change agents to be sensitive to the potentials in formal roles that are important in their particular situations. One should realize, also, that organizational and functional roles often overlap. The head of the science department may be an inside advocate for the adoption of a new science program in his or her school; a particular mathematics supervisor may or may not be an opinion leader for the mathematics department heads in his or her own school district.

Developers

Developers most often effect change by creating and packaging materials that they believe will meet the needs of users. They can help to establish a climate receptive of their innovation by initiating discussions in articles, books, and presentations at professional meetings about topics relevant to their new product. Some developers of "new social studies" programs wrote scholarly articles on value analysis, political socialization, and the effects of technology to create an awareness of a problem and to stimulate recognition of the need for the kinds of products they were developing. Such activities also increased the developers' respectability among opinion leaders in the field who might later recommend the use of the developers' materials.

One resource which the developer has is "competence credibility."
Someone who has competence credibility is perceived by potential adopters as an expert in the subject matter of the innovation. This resource remains untapped if the developer does not actively seek visibility. Potential adopters are more favorably disposed toward the developer's products if they have encountered him or her through articles they have read or conferences they have attended where the developer has spoken. Developers who are willing to spend time writing articles, conducting workshops, giving speeches, and meeting with state and district personnel who are influential in adoption decisions are more apt to foster diffusion of their products.

In what ways can the developer help to promote the innovation?

7.1 Who are the developers of the innovation? Where are they? In a nutshell, what are their backgrounds, their special competencies?

7.2 Are the developers of the innovation already known by the people in your system?

7.3 What could the developers do to obtain more visibility with opinion leaders and potential adopters in the system? Could you help them to get on a program attended by people in your system? Consider opportunities to present the developers and their ideas at meetings that occur regularly, like state conventions and district inservice days. The publisher of the program, a local curriculum supervisor, or a parent group might be able to sponsor a drive-in workshop or a luncheon meeting to enable potential adopters to meet the developer and learn about the program.

7.4 What can be done to help people get to regularly scheduled or special meetings at which the developers will be speaking? Could transportation costs be paid or a substitute teacher be provided? Could you invite someone to go with you to a meeting or simply suggest that there is a speaker you think they might enjoy hearing?

7.5 Are there some existing journals or newsletters which potential adopters read in which developers could publish articles? For example, the developer of a new elementary science program could publish an article in a journal that is regularly read by elementary principals or magazines.
that teachers read for creative classroom ideas as well as in science education journals.

7.6 What existing articles that have been written by developers could potential adopters read? Could college professors and consultants recommend some articles and could a department head circulate a copy of an article to department members?

7.7 Are tapes or written copies of speeches by developers available from the publisher or sponsor of the new product or program?

Seminar participants were emphatic about the need for developers to provide evidence that their products do create better educational conditions. Developers should distribute widely information about the objectives of their programs and provide evaluation data that demonstrates the effects of the program under particular conditions. Successful implementation of programs would be helped if developers provided instruments or guidelines that adopters could use to evaluate trials of the program. Developers could offer suggestions for modifying the use of the program based on the evaluation data obtained by adopters in their trial.

What evaluative data and implementation assistance can the developers provide?

7.8 How did the developers field test the program to discover the effects on students, teachers, and the school as a whole? Who used the program under what conditions? What changes can or have been made based on that formative evaluation?

7.9 Do the developers provide information on the objectives of the program and the extent to which these objectives have been met? What data are available on the unintended outcomes when the innovation has been used? What are the characteristics of students, teachers, schools, and communities from which the evaluation data were obtained and are these characteristics similar to those of your system? How might potential adopters in the system receive the evaluation data? Are published
7.10 How can adopters obtain guidance in evaluating and modifying the innovation to fit their needs? Do the developers provide instruments, guidelines, or consultants to help the adopters evaluate their own trials of the program? Do the developers suggest ways to modify the trials or to adapt the program to particular conditions based on the information obtained from the earlier trials?

College Professors

College professors have opportunities also to foster diffusion. Sometimes they initiate and develop innovations, but most often they introduce innovations developed by others to preservice and inservice teachers through the courses they teach and the consulting they do. Some college people have helped to diffuse mathematics, science, foreign language, and social studies innovations through summer institutes they conduct and special projects they direct or advise. Many other college professors, however, are not aware of new products and practices and recent developments in schools. A history professor who is asked to teach a special section on "History for Teachers" may not be as familiar with the recent literature in social studies education as with that in history. That professor should know what resource people are available to inform prospective teachers about educational innovations in the field. Determining which college people have access to teachers and informing them of innovations of which they might not be aware is an important change agent role. The role of the college professor has the potential for opinion leadership among others who profess their discipline and among teachers in the surrounding area. Unfortunately, information about school innovations seldom reaches many people in the various disciplines.

How might college professors fit into a change strategy?

7.11 Which professors in colleges near your system teach courses frequently taken by teachers during summer or evening sessions? Which professors teach undergraduates who are potential adopters for the innovation in
future years?

7.12 Which professors have much one-way communication with teachers or administrators in your system through speeches they give and articles or books they write? Which professors have two-way contact with school personnel through their work as consultants? You might obtain this information by asking school people with which professors they and their colleagues have the most contact. You might also ask key informants in the colleges which professors in education and in other disciplines have the most contact with school personnel. Inquire of both groups about how contacts are initiated, where meetings take place, whether they occur on a regular basis, whether they are formal meetings or informal conversations.

7.13 Which professors and which school personnel are particularly receptive to opening channels of communication with one another?

7.14 Which professors are active or could be encouraged to become active in teachers' organizations like the National Council for the Social Studies? Can professors in your area be encouraged to become involved with the local chapter of the organization?

7.15 Which professors would be willing to offer special courses for teachers who are interested in new approaches? Would they include examination of your innovation and training in its use in a course attended by people in your system? Would an English professor help a school system set up an inservice program in linguistics or would a political scientist offer a course in behavioral political science or urban politics?

7.16 Could a college professor near your area help them train teachers to use your innovation at inservice workshops?

7.17 From what sources could professors receive information about educational innovations in their field? Could Spanish professors be put on developers' mailing lists so that they can help prepare preservice Spanish
teachers in ways that are compatible with the materials
they will be using in their classrooms? What journals
and newsletters should mathematics professors receive so
they will be well informed about new developments in
elementary mathematics education?

7.18 Could college professors receive a list of people in
their area who can give information to their college
students about new educational developments? Who could
help you compile such a list?

7.19 Could names of college professors who are knowledgeable
about educational innovations in general in their field
and/or your innovation specifically be made available
to teachers in the area?

7.20 In what ways can college professors train preservice and
inservice teachers to better evaluate innovations?
Could they give their students practice in assessing
their own needs and values and selecting compatible inno-
vations? Could some professors give their students prac-
tice in using instruments like the Curriculum Materials
Analysis System*?

Leaders of Professional Organizations

The leadership in professional organizations has the potential to
facilitate diffusion. Like all opinion leaders, the leaders in profes-
sional organizations have opportunities to influence their social system
to innovate or to maintain the status quo. They can use their authority
to support new ideas; they can reward innovative efforts and offer serv-
ices that will foster diffusion; they can influence the kinds of issues
discussed in their organizations' journals and the kinds of activities

*The Curriculum Materials Analysis System (CMAS) was developed by Irving
Morrissett, W. Williams Stevens, Jr., and staff members of the Social Sci-
ence Education Consortium, Inc. Its purpose is to help educators system-
atically describe, compare, and select social studies curriculum materials.
It consists of eight sets of analytic questions about Product Character-
istics, Rationale and Objectives, Content, Theory and Strategies, Antece-
dent Conditions, Evaluation, Background of Materials Development, and
Background of the Analysis.
undertaken by their organizations; their endorsement can do much to facili-
tate the diffusion of an innovation.

In what ways might leaders of professional organizations promote the change?

7.21 Who are the leaders in the appropriate professional organizations?

7.22 What might those leaders do to facilitate diffusion of educational innovations in general in their field or of a particular innovation?

7.23 In what ways might publications and meetings of the professional organization be "consumed" by potential adopters and opinion leaders to make a system more receptive to a particular innovation and/or to future changes?

7.24 How can participation by potential adopters in professional association activities be encouraged?

7.25 What are ways of making the professional journals and reprints more easily available to and more widely read by potential adopters?

Officials of State Departments of Education

State department personnel can be keys to diffusion. In states with textbook adoption policies, state department personnel may influence the criteria used for selection and, thus, should be informed about new de-
velopments. In the 1960s, state agencies were heavily involved with writing proposals for the use of funds from the National Defense Educa-
tion Act, Elementary and Secondary Education Act, and other sources. Re-
cently, funds for career education have been channeled through state de-
partments of education. In addition to federal funds, state departments have access to all schools in the state—not just the innovative ones. Rural schools can be brought into the communication network by people in state offices. State department personnel can sponsor inservice work-
shops and they can make teachers aware of new developments through newsletters and site visits. Except in those few states where state department personnel have a tradition of leadership among teachers, the potentials in their role are often overlooked by change agents.

In what ways can state department personnel encourage the change?

7.26 How might state department personnel be used to disseminate knowledge about and build interest in an innovation? What specific state department sponsored occasions, events, and programs could be used to provide information about your innovation in particular and other innovations in general? What individuals in the state department can conduct workshops about the innovation? Some state social studies consultants co-sponsor workshops with teacher organizations, colleges, or groups like the Center for War/Peace Studies and the African American Institute. Is there someone at the state level who can send newsletters to schools or make visits to schools? Can state department personnel provide mailing lists to developers so they can distribute information about their innovations to schools?

7.27 How might state department personnel be used to provide support to your system for your innovation during trial and implementation? Can they provide financial support? Can they provide moral support? Can they suggest other systems in the state that are implementing or trying out the same innovation or a similar one which potential adopters can observe, work with, and obtain evaluation data from? Can they provide consulting services to help your system evaluate the innovation and adapt it to particular conditions?

7.28 What would be the best way to approach particular individuals in the state department?

7.29 Who in the state department influences the certification of teachers and setting of other standards that may be related to your innovation or the change process in general in your system? Who allocates funds which could facilitate the diffusion of innovations? Who influences the development of guidelines and the selection of readers for adopting new textbooks? Who develops state curriculum guides, and who approves new courses? How might those people become better informed about the objectives
of new programs and the evaluation data on them?

7.10 What specific state department personnel could be used to help diffuse your innovation within your system? You should make personal contacts at the state department to determine who is able and willing to help with the diffusion of your innovation and to plan together ways you can help one another.

Supervisors and Department Heads

Some of the most active diffusers have been local supervisors and department heads. They are expected to keep up with new developments and to disseminate information about innovations to teachers in their districts or schools. Supervisors and department heads should belong to associations such as the National Councils for the Teachers of English or Mathematics. They should attend state, regional, and national conventions whenever possible. It is especially important for supervisors and department heads to identify opinion leaders in the schools, to channel information to them, and to encourage them to attend workshops and conventions and experiment with innovations on a trial basis. Supervisors and department heads have the special potential to provide support to a teacher during trials of innovations. They can observe classes and provide helpful feedback, warn that it is natural for things to get worse before they get better, act as resources during the trials, help teachers evaluate trials, and work with teachers as they make adaptations and eventually decide whether to adopt a new program. They can also act as buffers between innovators when they first try new things and other members of the system.

Supervisors and department heads can also be powerful barriers to diffusion by refusing to approve the purchase of materials, by giving a negative appraisal, or by not helping an interested teacher to cut through "red tape." Advocacy for innovation in this role is crucial to both inside and outside change agents. Supervisors can sponsor workshops and introduce outside change agents to opinion leaders and inside advocates. They can provide moral support and sometimes the financial resources needed for interested teachers to try innovations. Or they
can impede entry and trial. No change agent can afford not to enlist their help.

In what ways can curriculum supervisors and department heads facilitate change?

7.31 Who are the supervisors and department heads who should and will work with your innovation?

7.32 In what ways might those supervisors and department heads become aware of new developments, especially your innovation, in their field? Who are the acknowledged leaders in their peer groups? What topics, issues, or trends are being promoted by their professional organizations or peer groups? Which summer institutes, midyear workshops, or special seminars could they participate in which would introduce them to innovations? Which national and state conventions should they attend on a regular basis? Which journals, newsletters, and bulletins could they receive? Are there some sales representatives, consultants, state department personnel, or college professors who could visit them or offer to conduct in-service programs for the teachers in their area? In what ways could supervisors and department heads be encouraged to visit other innovative schools?

7.33 What could the supervisors and department heads do to create awareness and build interest in your innovation? Could they circulate relevant articles and brochures to appropriate teachers? Could they conduct in-service programs or hold meetings where the innovation could be presented? Can they arrange for sales representatives, college professors, and state department personnel to help with such meetings? Can they arrange for teachers to receive college credit, in-service credit, released time, recognition in a bulletin, classroom materials, or some other reward for participating in workshops?

7.34 What key roles can the supervisor and department heads help to identify in your system? Can they determine who are potential inside advocates and opinion leaders? Can they determine whose support is needed in both the formal and informal decision-making structure?

7.35 In what ways can the supervisor and department heads provide support to individuals who are willing to try this and other innovations on an experimental basis? Can
they help to obtain needed materials and equipment or to work out needed adjustments in staff and scheduling? Can they do public relations work with administrators, other teachers, parents, and community groups?

7.36 In what ways can supervisors or department heads help teachers to evaluate trials of the innovation as it is in progress? How can they help the teachers to make adjustments based on the ongoing formative evaluation? Would teachers like visits from or periodic conferences with their supervisors or department heads during trials? The supervisor or department head is in a good position to give positive reinforcement and suggestions for modification which are much needed during trial of a new program.

Administrators

Administrators, through their functional roles as legitimizers or gate-keepers, are often important determinants of change in the schools. Their informal disapproval can act as a major barrier to a change agent's efforts or official administrative approval may be required by school policy.

The principal's approval may be required to use state money for state-adopted textbooks. The principal may also have access to special funds which could be used to purchase non-adopted materials or to send opinion leaders to conventions. Administrators who attended National Science Foundation summer workshops on "new social studies" projects facilitated change in their schools when they returned home. Some provided substitutes so teachers could visit schools where new materials were being used; others brought in consultants to conduct inservice workshops on new programs; and many used special funds to purchase sets of materials for teachers to use on a trial basis.

The support of an assistant superintendent for instruction may be helpful in approaching the board of education or a local foundation for special funds. One change agent found it paid off to build rapport with the assistant superintendent over a long period of time. That administrator's support was eventually crucial in obtaining a waiver to a district policy, thereby enabling his department to proceed with an innova-
tive program. Other change agents have learned that bypassing an administrator or not gaining his or her informal support can make changes extremely difficult, if not impossible.

In what ways can administrators facilitate the change?

7.37 Who are the administrators who can potentially affect acceptance or rejection of the change you are suggesting?

7.38 What resources, like money or required approval, do they have?

7.39 In what ways might their support be obtained?

7.40 Who has ready access to the key administrators and who has the most influence with them?

Teachers

Teachers can facilitate diffusion by enlisting the support of administrators for trials of a new program and through their enthusiasm when telling other teachers about innovations they have tried. Teachers are particularly credible to other teachers. For that reason their negative appraisal can also slow diffusion.

In some cases teachers are the locus of adoption decisions; in others they make recommendations to decision makers. In cases where adoption decisions are made above them in the hierarchy and passed down to them, teachers may abort the decision by passive resistance—not using the new program as intended or not using it at all. Some teachers are more likely to support change if they participate in the search for innovations, trials and evaluations, and decisions to adopt or reject than if they always have changes imposed upon them. Others prefer not to participate in that process, but it is important that they know they can offer suggestions.

Teacher feedback is valuable as new programs are tried. To facilitate diffusion, teachers who are opinion leaders should be informed about
the latest developments. To prevent maladoption or discontinuance, teachers who use materials should have access to needed inservice training, teacher's guides, and consultants. There is much risk in trying something new, so special attempts should be made to reward teachers who are willing to take the risks.

**How could teachers help make the change successful?**

7.41 How might teachers receive more information about innovations? Perhaps a bulletin board could be set up in the teachers' lounge or the department office to announce relevant innovations. A few minutes at department or faculty meetings could be allocated to "show and tell" about innovations. Someone might even teach a demonstration lesson. Professional books, journals, and newsletters could be kept in a comfortable part of the library or teachers' lounge to encourage teachers to look them over during their preparation period. Informed supervisors or opinion leaders can make special efforts in conversation to mention new programs to the appropriate teachers. Inservice credit, released time, and verbal suggestions could be used to encourage teachers to visit classes in their school and in other schools where the innovation is being tried or to attend drive-in meetings, local conventions, and consultant presentations.

7.42 What could teachers do to transmit more information about innovations? What kinds of relationships do teachers have with other key decision makers? Could they be encouraged to share information in faculty lounge discussions, on bulletin boards, at faculty and department meetings, or by putting memos in teachers' boxes? One teacher convinced a principal to buy a needed microscope by putting pictures of the microscope on the bulletin boards and telephones around the school.

---

**Students**

Students can influence change in the school. If they give a teacher positive feedback during the trial of a new program, the teacher will probably evaluate the innovation positively. Students also report their reactions to parents and other students. When one class in a school tries a new set of materials, the students in that class share their experiences with friends. If they like it, other students will ask their...
teachers to use the materials. The process can work to prevent diffusion also. Students who do not like an innovation will tell their friends, parents, and other teachers. In field testing materials, developers should pay particular attention to student reactions. Local curriculum committees can also benefit from student input to adoption decisions. Because methods for listening to students have been inadequately institutionalized, too often schools respond to only a minority of voices. Gathering feedback from students should become part of the regular operation of schools.

**What role can students play in the change process?**

7.43 In what ways can students contribute to the selection and implementation of new programs? Needs assessments may include interviews with students or attitude scales which indicate student reactions to programmed texts, paperback booklets, problem-centered materials, or other new educational products. Systematic student input can aid in the search for new programs. A sample of students could be asked to review several new materials that are being considered and submit their reactions to their teacher or to a textbook selection committee. Most importantly, students who are involved in the trial of a new program should be asked frequently for their reactions to the new program. If students find a new program too difficult or feel that it does not have enough variety of activities, teachers can make modifications immediately. Frequent feedback from students either in the form of written attitude scales or interviews with a small sample can help teachers to adapt new programs to fit the needs of their students.

7.44 Who listens to students? How? About what? What policies or considerations, formal and informal, govern teacher/student relationships?

**Parents and Community Members**

Parents and community members have the potential to affect change in their children's schools. They give feedback to teachers and administrators that influences whether innovations are continued. Workshops on the "new math" programs were given for parents, and some supervisors have invited the community to presentations on "new social studies": pro-
grams. In some places, community members are involved in establishing goals and objectives for schools (Keith et al. 1972). But enlisting community support has rarely been tried. Most often it is when the community organizes to prevent an innovation that it is considered in the change process.

What role can parents and community members play in the change process?

7.45 In what ways could the community become knowledgeable about an innovation and provide feedback early during trials? Could teachers and students, supervisors, or an outside consultant present an informational evening program to the community about the new approaches? Could a few interested parents be encouraged to visit the classes where new programs are being tried? Could some parents act as teachers' aides in class or as tutors after school? Could night classes using the new programs be offered to parents who are interested in learning about the "new math" or the "new social studies?" Could parent support also be solicited by telephoning some and asking what their children are saying at home about the new programs?

Publisher's Representatives

Traditionally, the most effective diffusers of educational materials have been publishers' representatives. For the many teachers—both elementary and secondary—who do not read professional journals or attend professional meetings, the primary source of information about new developments is the textbook salesperson who comes to their school. As representatives make periodic visits to sell to and service schools over the years, they become a friend teachers feel they can trust. Because the salespeople sit down with the teachers to explain their products, those materials are more likely to be considered for adoption than the materials not brought to people's attention in such personal ways. Sales representatives are the ones who directly carry the product to the local schools and service the customer. In addition to creating awareness about new products, salespeople sometimes offer inservice workshops on the use of their programs. They may, for example, invite people from their area to a drive-in presentation. Often supervisors call on them
to consult with teachers who are implementing a new program. Sales representatives are called upon to provide information to state and local textbook adoption committees. Because publisher's representatives often have contact with educators who do not receive messages about new products from other channels, it is particularly important that they be able to clearly describe the goals of their program and present evaluation data to potential adopters. To prevent maladaptation or discontinuance, they should provide consultants for follow-up support after purchase.

What might the sales representative's role be in your diffusion plan?

7.46 In what ways could publishers' representatives provide more information about an innovation to potential adopters? Could the representative or consultant they provide meet with groups of teachers and students as well as with department heads to explain new programs?

7.47 What evaluation data can the sales representatives provide on the use of the program in particular situations?

7.48 Can publishers' representatives provide cost/benefit data? Per pupil costs over various periods of time?

7.49 What services could publishers provide to help individuals to most effectively try an innovation on an experimental basis and modify it when needed? Can they conduct inservice training programs or supply training films or packages? Do they provide detailed daily instructional plans? What guidelines can the representatives give to teachers to help them evaluate their tryouts and to make modifications in the program based on that feedback? Who can the teacher call or write for help in overcoming difficulties when they arise and for suggestions on how to adapt the innovation for local needs?

Special Roles

Special roles to promote educational change increase diffusion, but the costs of training and follow-up support have limited their numbers. The Social Studies Field Agent Training Program at Indiana University
trained 11 change agents who were aware of new developments in social studies, knowledgeable about the change process, and skilled in diffusion techniques. The field agents were quite successful in diffusing the "new social studies" in their areas. However, the pilot program has not been replicated—the idea of training and supporting field agents has not diffused. A similar field agent program for science education in the 1950s was successful for a time. The role, however, was not institutionalized. The National Science Foundation sponsored hundreds of summer, part-time in-service, and academic-year institutes for teachers and administrators. Participants became aware of educational innovations and received special training; but without continuing follow-ups, they were often unable to implement the changes in their districts.

Special roles can contribute much to diffusion, but unfortunately there have not been the resources to create more roles and to maintain the existing ones over time. The concept of special roles needs to be expanded in light of new knowledge about change. Dissemination is not enough. Change agents need to be trained to help the systems in which they operate improve their capacity for change so that when they leave, or when an innovation becomes outdated, the system can continue to renew itself.

7.50 How can these people who have had special training be identified and tapped? Where can you get the names of persons who have attended workshops or received other special training? How can their expertise and experience best be mobilized?

7.51 What special roles exist, or could be created to support change in your area? Could some people serve as linkers between developers and consumers? They could convey information about new programs including the innovation in which you are presently interested, to the schools and obtain feedback from schools about their needs and their reactions to new programs. Could they provide support to inside advocates? Could they help adopters to evaluate their trials and make adaptations to fit their needs? Are there some people filling existing "extension agent" roles who should be informed about your innovation so that they
can disseminate information about it?

Combining Your Diagnoses: The Intervention and the Job-Related Roles

Now you should re-examine your diagnosis of the intervention—the innovation and your own role—in light of what you know about job-related roles in your system, just as you did at the end of the preceding chapter on functional roles.

7.52 Read over your analysis of the innovation and list which characteristics will be important to particular people you have identified in job-related roles. List the relevant characteristics of the innovation down one side of the page and the people to whom each characteristic will be important opposite that characteristic, just as you did in the preceding chapter.

7.53 Where do you fit into the constellation of job-related roles? What is your relationship to others in job-related roles who are likely to become involved in the change process?
An important aid in getting a new idea, product, or practice implemented is to list all the occasions or situations in which individuals and groups within your system are likely to be open to suggestions regarding your particular innovation. The natural life of a school or district and of those who work in it provides numerous occasions when discussion takes place and choices are made—for example, when books are selected for adoption; when teachers are hired, fired, or reassigned, or when they resign; when curriculum or courses are revised; when meetings are planned and held; when conventions are attended or reported on, in-service days or workshops offered, social occasions arranged, budgets prepared, materials ordered, and so forth. Using these occasions to inject information, persuade a colleague, raise a doubt, support a proposal, offer to take responsibility, or suggest a new practice may result in significant changes over an extended period, especially if these instances are used as part of a larger strategy. The sample list of "Occasions That Might Be Utilized in a Change Strategy," Figure 1 on page 60, will help to get you started on your own list.

What occasions, or events, will be important in the change process?

8.1 When might your proposed change or innovation be discussed and decisions made regarding its trial and use? List all the occasions in which decisions are likely to be made related to the innovation.

8.2 In your system, is there a regularized sequence of events or occasions in which proposals about new materials and practices are reviewed and decisions about pilot-testing and adoptions made?

8.3 If the innovation requires the purchase of new materials or expenditures for in-service programs, what are the deadlines you must meet on budgetary requests?

8.4 Are there events in the school year which make certain
time particularly inappropriate or undesirable (or particularly appropriate or desirable) for proposing changes: bond issues? elections? contract expirations? school accreditation or evaluation?

8.5 How much lead time is needed to get your innovation underway once you have approval to move ahead?

Figure 1.

Occasions That Might Be Utilized in a Change Strategy

- Faculty meetings
- Book and materials selection
- Budget making
- Professional conferences or conventions
- Social occasions: picnics, dinner parties, luncheons
- Lunch (in school)
- Coffee breaks
- Negotiations
- Personnel selection or assignment
- Promotions
- Course changes
- Curriculum revisions
- Library acquisitions: books, pamphlets, newspapers, professional journals
- Grading or testing
- Teacher inservice programs
- Institute days
- Evaluations, assessments
- Accreditation
- Classroom visitation
- Unplanned meetings in lounge or halls
- Assemblies or other school-wide events
- Equipment purchase or assignments
- Visitors from other schools, from the community
- School board meetings
- Articles or announcements in professional journals
- Publicity in local paper
- Changes in legislation or policies
- Statewide meetings
It is important to remember that the setting for change within a school or school district may be quite different at "normal" (non-decision) times than it is if, say, textbook selection and adoption is imminent or evaluation for accreditation purposes is underway. The same could be true for situations involving bond issues, changes of superintendents or principals, salary negotiations, questions of decentralization and community control, the teaching of controversial issues, and so forth. Being attuned to these special circumstances, aware of how the school actually operates, and sensitive to the relationships between these conditions are essential prerequisites for successfully gauging the timing and appropriateness of proposed changes.

Having identified all the occasions when decisions affecting the proposed innovation are likely to be made is an important first step in developing a strategy. Developing an appropriate strategy for each occasion also needs careful attention.

Who will be influential in these occasions?

8.6 Who calls the meetings, sets the agenda, and creates the informal situations in which the important discussions take place?

8.7 Who is invited to attend? To present proposals? To be present to answer questions?

8.8 Can there be informal discussions or polls prior to formal meetings to see how favorable or unfavorable the climate is for this particular change?

Combining Your Diagnoses: The Innovation, The Roles, and Timing

Now look over your diagnoses relating roles and the innovation to one another. To that analysis, add your analysis of occasions and timing.

8.9 What occasions are potential opportunities for working with whom and which aspects of the innovation should be emphasized?
The potentials for change in an educational system often may be revealed by examining the interactions between roles at selected times. These interactions are communication. The change agent must think about what sorts of messages he or she wishes to communicate to whom, what channels to use for most effectively communicating those messages, and what techniques are most appropriate for their delivery.

Kinds of Messages

At the end of Chapters 6 and 7, you combined your diagnoses of the innovation and the roles by determining what aspects of the innovation would be of most interest to persons playing various roles in your system. There you determined the general outlines of the content of your messages. You might take this analysis a bit further by trying to categorize the types of messages you wish to direct to each role within six "strategies" suggested by Guba (1968). Guba's six strategies will help you to clarify what sort of emphasis to give your message--to what motives and concerns of potential adopters and facilitators should you appeal?

Guba's value strategy views the receiver of the message as a professionaly oriented person who can be influenced by an appeal to his or her values. The rational strategy views the receiver as a rational entity who can be convinced of an innovation's utility on the basis of hard data, logical argument, and recognition of self-interest. A didactic strategy views the receiver as willing to adopt but untrained to use the innovation. The psychological strategy views the receiver as a psychological entity whose needs for acceptance, involvement, and inclusion can be employed to persuade him or her to consider the innovation. The economic strategy views the receiver as an economically oriented entity who can be influenced by the economic advantages of using an innovation. The sixth strategy described by Guba is the authority strategy, which views the receiver as a member of a bureaucratic system who can be influenced by virtue of his or her relationship to an authority hierarchy.
What kinds of messages (strategies) should you use?

9.1 Which message (strategy) would be most appropriate to each role and related innovation characteristic(s) you have identified? Consider the long term effects on the system's ability to handle future change as well as immediate effects.

9.2 Who could most effectively deliver which messages about the innovation to whom? (You may wish to return to this question after you have completed this chapter.)

Communication Channels

The Wingspread Seminar participants and the diffusion literature have emphasized the value of mass media for creating awareness among potential adopters and the importance of interpersonal communication in influencing the decisions of adopters.

Mass media communication channels are effective in creating initial awareness of educational innovations. Articles and speeches by developers and others about various issues surrounding the proposed innovation create receptivity to the developers' products. People who feel that their role requires them to keep up with new developments personally read advertisements as well as articles about particular innovations in professional journals. Curriculum specialists, librarians, and department heads often learn about innovations through these mass media sources.

New products should be displayed at educational conferences that draw potential adopters or people who communicate with potential adopters. The effect of those channels could be strengthened by encouraging opinion leaders to attend conferences and to read journals. Districts that purchase appropriate journals, display them in appropriate places, and provide released time and travel reimbursement for teachers to attend professional meetings are creating a climate in which their system is more likely to receive messages about innovations.

No change agent can afford to overlook such traditional channels used by potential adopters to learn about new products and practices. However, they should also consider creating new mass media channels for disseminating information about innovations. For instance, in England,
films about new mathematics programs were shown at teachers meetings, on public television, and in the schools, and pamphlets were distributed which explained the programs in attractive ways.

How could mass media channels be used in your plan for change?

9.3 What mass media channels of information exist that would inform receivers about new developments in the field on a regular basis? What professional journals should individuals or institutions receive? How can potential adopters get on the mailing lists of organizations which disseminate information about innovations? Look over your diagnosis of roles and identify people who may know of journals, newsletters, and bulletins of which you may not be aware already and ask them for suggestions.

9.4 What conventions should potential adopters be encouraged to attend where developers speak and conduct workshops and where new materials are exhibited? What could be done to encourage the potential adopters to attend those meetings? Do they need financial support or personal encouragement to attend? How can you help them either directly or indirectly to get that?

9.5 How can those who attend be used to provide stimulation and information to others in your system?

9.6 What mass media channels now exist that could be used to inform receivers about your innovation? Note the periodicals and journals which are in the school libraries, administrators' offices, teachers' lounges, and offices of appropriate college professors. Sample a few individuals in relevant roles by asking them in person or in questionnaires what periodicals they tend to peruse fairly often. You might help get appropriate articles or announcements into some existing publications or you might want to help create a new publication. Note which channels are most appropriate for what messages and for which audiences. For example, teachers might be interested in a short article on the reactions of students in other, similar schools to your proposed innovation. That article could be included in a quarterly bulletin from the district curriculum developer which focuses on classroom activities. Supervisors who are interested in needed im-
Implementation supports may regularly read a journal on curriculum and supervision.

What changes could be made so that the roles you have identified in your diagnosis would be more likely to receive messages from mass media channels? Who should be encouraged to attend what meetings or to read what publications? What kinds of support and encouragement should be given? Are there strategic places like department offices or faculty rooms where appropriate periodicals could be enticingly available? Could you help individuals think of ingenious ways to cut costs so that they can attend a regional convention or workshop? Could you help them to locate funds they did not know were available for transportation or for institutional subscriptions to journals? Look over your diagnosis of roles. Which people might be able to help you in this effort?

One must realize, however, that there are limits to the effects of mass media. Many teachers do not read journals; publishers' notices may go directly from the teachers' mailbox into the wastebasket; and most educators do not attend national conventions. Even when written media are read and conventions are attended, these sorts of contacts cannot carry the entire weight of bringing about change in schools. Dissemination of information about educational innovations via mass media is clearly a necessary but not sufficient condition for successful diffusion. A crucial element in adoption decisions is interpersonal sources of information. People pay more attention to and put more trust in messages received in face-to-face contacts. One teacher, a colleague in the building, telling about an innovation he or she tried, saw, or read about is a powerful channel for diffusion. Personal visits by supervisors and sales representatives are influential also. If you want someone to consider an innovation, one of your most effective strategies would be to consider who could best deliver an interpersonal communication about your innovation to that person. Traditional and routine channels should be considered as well as the creation of new ones.

Consultants and sales representatives who work with publishing companies further the diffusion of innovations because they are the people with expertise about particular programs who share their knowledge in a
personal way with clients. Because these kinds of interactions permit two-way communication, potential adopters can ask questions that are relevant to their needs and concerns. In that way, they can get a clearer picture about whether an innovation would "fit" than they can from reading advertisements. That is why interpersonal communication is particularly important in moving from interest in an innovation to the decision to try it on a limited basis. Though mass media communication may influence one's opinion, face-to-face interaction is more likely to influence changes in one's behavior.

An important aspect of interpersonal communication is what Rogers and Shoemaker call homophily/heterophily. "Homophily is the degree to which pairs of individuals who interact are similar in certain attributes," such as attitudes and beliefs. "Heterophily is the degree to which pairs of individuals who interact are different in certain attributes." (Rogers and Shoemaker 1971, p. 210) The more the source of information is perceived as being like the receiver, the more influence the source has on the receiver. Teachers place more emphasis on an evaluation by a fellow teacher than they do on a comment by an "ivory tower" professor type who is perceived as too far from the classroom to know "what it's really like." Rogers emphasizes the greater the homophily, or perceived similarity, the more "safety credibility" the change agent has in the eyes of the client. One with high safety credibility is perceived to be trustworthy and reliable, that is, "safe." Programs to train educational extension agents (Louis and Sieber 1972) and social studies field agents (Marker and Mehlinger 1972) were effective because teachers trusted information received interpersonally from other teachers like themselves. Similarly, the English Teacher Centers are based on the recognition that it is important for teachers to get together to exchange information and to help one another through initial trials of an innovation.

The frequent norm in schools is for teachers not to share information and ideas with one another. This is a major barrier to change because it deprives each teacher of a rich source of information about innovations. Increasing the opportunities for interpersonal communication increases the likelihood that information will flow within the sys-
tem and from the outside. Clearly, that should receive the attention of change agents who are concerned about increasing schools' capacity to receive and circulate messages about alternatives from which choices can be made. Increased interpersonal communication is the key to diffusion of particular innovations but, more importantly, it is essential for organizations that depend on being continuously aware of new developments which may help them to meet their particular goals.

What interpersonal sources of communication could be included in your change plan?

9.8 What can be done so that potential adopters of your proposed innovation can have personal contact with someone who is familiar with the program? Is there some way they can meet with consultants or visit schools where the materials are being used in order to talk with adopters and to observe the results of using the program?

9.9 Once a teacher in your system has decided to try the proposed innovation, will there be opportunities for him or her to share impressions about it with other teachers in the system who are potential future adopters? Is it the norm for teachers in your system to discuss with their colleagues new things they are trying? If not, is there some way you can encourage such sharing?

9.10 In what ways could opportunities in your system for interpersonal communication be used more or created to increase the amount of information about innovations in general that flows within the system? It is particularly important for a change agent to understand the regular processes of the system—who routinely talks to whom. Do department heads, principals, and supervisors talk with teachers or do they rely mostly on memos? Does conversation among teachers take place in a lounge, in the cafeteria, or in offices, or does a place for such interpersonal communication need to be created? Could brief "show and tell" periods be included in regular faculty meetings or at inservice workshops? Could the state department of education sponsor regional meetings for department heads or principals in which they are encouraged to share information about new programs and products being tried in their schools?
Communication Techniques

As a change agent, you must consider not only the kinds of messages, or strategies, you wish to deliver and the channels through which you will deliver them, but also the techniques that will convey them with the most impact. Guba (1968) has suggested six techniques (as well as the six strategies mentioned earlier) that a change agent might employ—telling, showing, helping, involving, training, and intervening. Some techniques are more appropriate for mass media channels and others are more appropriate for interpersonal channels of communication.

One may tell of an innovation in books, articles, speeches, brochures, newsletters, or conversations. Telling is particularly effective for creating awareness and building knowledge, whether by mass media or interpersonal channels.

What communication techniques should you use?

9.11 What channels of communication should be used for telling what to whom by whom?

.Showing is particularly appropriate for persuading someone to try an innovation. Brickell (1961, pp. 27-28) emphasized that the most effective way of convincing educators of the value of an innovation is to demonstrate it to them. Hundreds of teachers and administrators in Brickell's study said that the only way to judge a new program is to see it in operation. For that reason change agents should give potential adopters the opportunity to see the innovation in use—on a film, on video tape, in a demonstration at a convention, workshop, or inservice meeting, or in a classroom that has already adopted the innovation.

9.12 Can you, a developer, a consultant, a teacher, or someone else conduct a demonstration of your innovation?

9.13 Can you bring the demonstration to potential adopters or help them to get to a demonstration?

9.14 Can your innovation be demonstrated under conditions and using teachers and students similar to those in
the potential adopter's situation?

Helping involves working directly with potential or new adopters to solve their particular problems. An inside or outside change agent may help an individual or group diagnose needs and determine objectives, search for and select appropriate resources, and install an innovation. It is especially important for change agents to be sensitive to adopters' concerns about difficulties or weaknesses in using innovations and to be able to suggest and demonstrate ways to overcome those difficulties. Adopters often need help in adapting the innovation to their particular situation.

9.15 What kind of help can be provided to whom, when, and by whom?

Involving people who will eventually be affected by the change in the decision-making process as soon as possible is important. If, early in the adoption process, individuals' concerns have been expressed, considered, and either alleviated or used to modify the way in which an innovation will be used, successful change will more likely result. Too often, changes which could help a particular situation are rejected, used inappropriately, or discontinued because the concerns of the ultimate users were not part of the input at the early stages of the adoption decision.

9.16 In what ways can eventual users be involved early in the decision process?

9.17 In what ways can users be involved in decision making and giving feedback throughout trials and implementation of your innovation?

Training may include the use of lectures, training films, videotapes, kits, programmed instruction, written teacher's guides, lectures, demonstrations, role playing, and discussions. Workshops, inservice meetings, or a continuing seminar with adopters during try-outs can offer opportunities for training.
9.18 What can be done to help adopters receive training in the use of the innovation?

9.19 What can be done to facilitate initial trial and early success?

9.20 What can be done to support continued success and adoption?

For more information on how to most effectively tell, show, help, involve, and train, the diffuser is encouraged to read "Diffusion Techniques," Chapter 4 in Bringing About Change in Social Studies Education by Alice Jwaideh and Gerald W. Marker (1973).

Intervening involves issuing statements or policies that require one to change. This action is primarily available to people in positions of authority in a hierarchy. It must be used cautiously so that people are not offended and are willing to try the change. If they are forced to accept a change they do not like, the change will probably be maladapted or discontinued.

9.21 Are there ways in which you or someone else can intervene which you believe will produce desirable results in the long run as well as the short run?

9.22 Is change by fiat the usual procedure in similar situations? Might such a procedure be expected by potential adopters to the extent that they would feel uncomfortable if the change were introduced without it?

9.23 Could intervening be combined with other techniques to promote the change process?

Combining Your Diagnoses: The Innovation, The Roles, Timing, and Communication

9.25 Now look over your concluding responses to Chapters 5, 6, and 7 and your responses to questions in this chapter. Decide what channels and techniques of communication would be most appropriate for delivering which messages to which people. Note which you will handle yourself directly and which should go through intermediaries before reaching the ultimate audience.
PART IV
PUTTING IT ALL TOGETHER
Chapter 10
DEVELOPING A PLAN

You have now determined the attributes of the innovation, the roles various persons in your system play, the occasions for promoting your innovation, and the messages, communication channels, and techniques that are related to achieving your goal. It is time to pull together all the information you have gathered and develop a plan of action from it. You have already done much of the work of developing this plan, when, at the end of each chapter, you related your responses to questions in that chapter to information elicited by previous chapters. This chapter will guide you in integrating all of this to form a streamlined, coherent plan of action. Then, in Chapter 11, you will focus on ways of obtaining feedback from participants in the process to help you adjust and modify your plan as it unfolds in action.

We suggest that you think of yourself as a playwright. You must decide what you want various actors to say and do, and when. You may need to get some actors involved several scenes prior to the one in which they play a major role. The roles of the stars and those of minor players must be given equal attention. Because each is significant to the eventual outcome, you must plan for everyone carefully. Like a playwright, a change agent must anticipate the sequence of events, yet realize that actors play their roles as they personally interpret them. One needs to consider how much deviation is acceptable without changing the essence of the plan or the play. It is important to remember that, as in a play, success depends largely upon appropriate and effective combination of the talents of many people.

Now look back through your responses to Chapters 6 and 7, on roles. Decide which roles are related to meeting your goal. Include both major and minor roles. Decide what help is needed from each. Consider actions, attitudes, and messages (or lines, as in a play). There may be several different things you want from a particular person. Be sure to put yourself on the list, since you have an important role in this play. You might use a format such as:
<table>
<thead>
<tr>
<th>Individual's Name</th>
<th>Pertinent Formal or Informal Role</th>
<th>Action, Attitude, or Message Needed from the Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margaret Hinson</td>
<td>Math supervisor</td>
<td>Help department heads get travel money to state math convention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conduct an inservice meeting using the publisher's consultant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Circulate an article to principals</td>
</tr>
</tbody>
</table>

To help you determine the appropriate timing for actors' entrances, performances, and exits, we suggest that you stretch a large sheet of butcher paper or newsprint across your floor or around the walls of your room. At the far righthand end, write out a statement of your goal and at the top of the sheet above that write the data when you expect to achieve it if you are successful. Now, divide the paper into units of time—years, months, or weeks, whichever is appropriate—back to the lefthand side, which is today. List the roles you have identified above down the lefthand side of the paper, leaving some space at the bottom in which you can later fill in your evaluation plans (to be developed in the next chapter). Now, go back over your chapter on timing and record occasions which might be used to promote your innovation (from Chapter 8) across the top, according to the time at which the occasion may occur.

Next, fill in the activities for each role at appropriate points on the sheet. The area in each activity cell thus becomes an interaction of a role with other roles during an occasion through some communication. Reread your responses about communication in Chapter 9 so that you are certain that the appropriate communication is activated to carry particular messages at the optimum time. For example, in order to get teachers to attend a summer workshop, the workshop should be described in the winter issue of a newsletter; the editor of the newsletter should be contacted in the fall; and the change agent should make personal visits...
to schools in February to encourage people to sign up for the workshop. Keep in mind that Role X may need to take a particular action before Role Z can act. This will be particularly true in the use of opinion leaders and legitimizers. As you work down the list you will discover factors that will make you realize you should change the time for a particular actor's action you already have plotted. For that reason, use a pencil on the butcher paper and let your developing plan suggest modifications in your earlier thought. After you have considered roles, timing, and communication in outlining your plan for change, look at each action to be sure all needed groundwork will be laid by previous action.

<table>
<thead>
<tr>
<th>Occasions</th>
<th>Fall '75</th>
<th>Spring '76</th>
<th>Fall '76</th>
<th>Spring '77</th>
<th>Fall '77</th>
<th>Spring '78</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inservice meeting</td>
<td>State convention</td>
<td>Inservice workshop</td>
<td>Selection of texts for state adoption</td>
<td>Goal: extensive use of X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Names of People</th>
<th>Goldberg</th>
<th>Hinson</th>
<th>Brown</th>
<th>Self</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describes workshop in Newsletter</td>
<td>attends, hears consultant, developer</td>
<td>major speaker</td>
<td>call Goldberg, visit schools, tell about workshop</td>
</tr>
</tbody>
</table>

Finally, look over your grid to be sure your plan reflects the following generalizations obtained from diffusion studies.

- Legitimization of the innovation by appropriate authorities in the system is necessary before complete installation can take place.
- Ready acceptance of the innovation is facilitated by a demonstration of comparative advantage.
- A clear perception of the incentives and advantages of
the innovation is necessary.

- Whenever possible, accommodation should be made to existing conditions without limiting the effect of the innovation.
- Those affected by the innovation should be involved in the decision to accept, reject, or modify the proposed idea.
- The commitment of the adopting agency is crucial in the ultimate success of the innovation.*

You may wish to jot down in your notebook what specific steps in your plan are aimed at meeting the "requirements" of each generalization and check these notes as you implement the plan to see how well the steps are actually fulfilling these aims.

The butcher paper grid is your plan for change. You may follow the last row across the bottom of the chart to see what sequence of actions are required of you, or you may list your own personal timetable on a separate sheet of paper in your notebook. (You may, in fact, wish to transfer the entire plan into your notebook in order to have a permanent record of it together with your diagnostic notes.)

Chapter 11
EVALUATING YOUR PROGRESS

Plans have a way of going awry. For that reason, it is important for you and others responsible for executing the change plan to keep checking on how things are going. You need facts, not guesses—specific, systematic information about what people are doing, thinking, and saying, rather than haphazard, unsubstantiated reports. Data needed for planning, implementing, and modifying one's strategy may be obtained in many ways:

- observation (both systematic and informal) of how staff members react to the program and what they are doing;
- informal individual chats with those directly involved;
- "bull" sessions, scheduled as part of the implementation program, where the tone is relaxed and open to gripes and expressions of satisfaction;
- evaluation sessions where progress to date is discussed and next steps are planned;
- questionnaires;
- planned interviews designed to get specific reactions and particular information; and
- discussions with those who hold particular views about the innovation.

You will need to gather evaluation data on your change plan all along—at early stages, when people are first becoming aware of the innovation; in the middle stages, while the innovation is being examined and tried out by adopters; and at later stages, after it has been adopted. Seeking to make changes often produces unanticipated consequences. The Center for Advanced Study of Educational Administration has reported, for example, the unanticipated consequences of a human relations training program for staff members. The program succeeded in its aim of promoting openness and willingness to change, but in so doing created a norm of equalitarianism that was in conflict with the hierarchical
features of the school's differentiated staffing program (Charters and Jones 1973, p. 7). Nor do institutional commitments or alterations in the organization automatically produce the desired teacher behavior; in fact, contrary patterns may occur.

How does one know when an innovation has been adopted? Those who observe and work in schools are frequently struck by discrepancies between what schools report they are doing and what actually goes on. Changes in name only are also well known to such observers. Crucial to efforts to answer this key question is how one conceptualizes and judges change in a school program.

Judging the success of an innovation requires that one keep in mind that the teacher's use of the new materials or practices—not mere presence in the classroom or school—constitutes the innovation. A key question is: Have the behavior patterns of teachers, including their interactions with students, changed so as to be in keeping with the performance (behavior) required by the innovation? The success of an attempt to implement an innovation, however, can seldom be determined solely by observing individual performance; relational and interdependence patterns are usually involved as well.

Developing a plan for implementing an innovation requires that careful consideration be given to the basis to be used for judging its success. However, judging the success of an innovation on the basis of preconceived notions of what improvements would occur as a result of its implementation should not blind one to other perhaps equally important but unforeseen impacts of the diffusion process.

The final step in developing your change plan is to outline how you will evaluate the success of the plan as it unfolds. Read over your plan-of-action grid and determine how you might gather evaluation data at each stage. Consider using various techniques suggested on page 79 and others you feel would be appropriate for your needs. Fill in notes on your evaluation plans under the appropriate time segments in the space you have left for evaluation at the bottom of your butcher paper sheets. Remember to gather information on the final implementation of the program as well as data on the stages prior to adoption.
REFERENCES


Appendix

LIST OF RESOURCES

General References on Diffusion


This is a compilation of instruments that can be used by school personnel to help define problems more clearly, develop plans for change, identify discrepancies in role perceptions, and improve internal communication.


Havelock suggests how a change agent might institute change through a problem-solving process: build a relationship with the client; help the client to diagnose needs and determine objectives; help the client to search both inside and outside the system for possible solutions or resources; help the client to weigh alternatives, select solutions, plan for implementation, and evaluate the change.


This book summarizes the research on change. It contains sections on individual psychological variables and organizational variables that affect change; describes major models of change; and advocates more linkage roles to bring about more effective dissemination and utilization of knowledge.


Jwaideh and Marker summarize much of the literature on educational change, give some helpful suggestions on how to conduct inservice programs, and describe a program to train change agents in the social studies.


This book summarizes knowledge developed in the fields of anthro-
polity, agriculture, medicine, marketing, and education about the diffusion of innovations. It suggests hypotheses about adopter characteristics and innovation characteristics that are related to adoption patterns and rates of diffusion.

General Resources for Keeping Up


Publishes a yearbook, booklets, News Exchanges, and a journal, Educational Leadership.

Center for the Study of Evaluation, 145 Moore Hall, University of California, Los Angeles, California 90024.

Publishes systematic descriptions of tests in various fields at various levels.

Educational Products Information Exchange, 463 W. Street, New York, New York 10014.

Publishes EPIE Reports, which systematically describe and evaluate educational products such as curriculum materials, laboratory equipment, and audio-visual equipment.

National Science Foundation, Education Section, Washington, D.C. 20550.

Sponsors summer workshops, conferences, and institutes for training teachers in new materials and techniques for science, mathematics, and social science education.


Sponsors a variety of educational innovation programs, including those under the Elementary and Secondary Education Act.

Resources for Keeping Up in English and Language Arts Education

ERIC Clearinghouse for Reading and Communication Skills, 1111 Kenyon Road, Urbana, Illinois 61801.

Provides information on materials and research relevant to particular problems in English/reading/language arts. Also, publishes occasional papers to help teachers utilize materials and research.

National Association for Humanities Education, P.O. Box 628, Kirksville, Missouri 63501.
Publishes Humanities Journal.

National Council of Teachers of English, 1111 Kenyon Road, Urbana, Illinois 61801.

Publishes audio-visual materials and other publications as well as four journals: Elementary English, English Journal, English Education, and Research in the Teaching of English.


Sponsors various programs for education in the humanities.

National Humanities Faculty, 1266 Main Street, Concord, Massachusetts 01742.

Provides financial and monetary resources for schools seeking to develop new programs in the humanities or interdisciplinary studies.


Resources for Keeping Up in Mathematics Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 400 Lincoln Tower, The Ohio State University, 1800 Cannon Drive, Columbus, Ohio 43210.

Provides information on materials and research relevant to particular problems in mathematics education. Also, publishes occasional papers to help teachers utilize materials and research.


School Science and Mathematics Association, Inc., P.O. Box 1614, Indiana University of Pennsylvania, Indiana, Pennsylvania 15701.

Publishes a newsletter and the journal, School Science and Mathematics. Also conducts workshops to train mathematics teachers in use of new materials and techniques.
Resources for Keeping Up in Reading Education

Association for Children with Learning Disabilities, 2200 Brownsville Road, Pittsburgh, Pennsylvania 15210.

Publishes a monthly newsletter, Items of Interest, as well as occasional papers.

ERIC Clearinghouse for Reading and Communication Skills, 1111 Kenyon Road, Urbana, Illinois 61801.

Provides information on materials and research relevant to particular problems in reading/English/language arts. Also, publishes occasional papers to help teachers utilize materials and research.

International Reading Association, 6 Tyre Avenue, Newark, Delaware 19711.


Publishes a newsletter, yearbooks, various series of booklets to assist teachers, and a journal, Social Education.

National Reading Council, 1776 Massachusetts Avenue, Washington, D.C. 20036.

Publishes a newsletter and Information Series brochures.

Resources for Keeping Up in Science Education

AAAS Commission on Science Education, American Association for the Advancement of Science, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005.

Publishes a newsletter; Science Education News; Science for Society: Education Review; and Science for Society: Bibliography (up-dated annually).

American Association of Physics Teachers, 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036.

Publishes the journal, The Physics Teacher.

Association for the Education of Teachers in Science, c/o Jacob W. Blankenship, 254 Education Building, University of Houston, Houston, Texas 77004.

Publishes the journal, Science Education.

Biological Sciences Curriculum Study, University of Colorado, Boulder, Colorado 80302.
Publishes a newsletter and curriculum materials.

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 400 Lincoln Tower, The Ohio State University, 1800 Cannon Drive, Columbus, Ohio 43210.

Provides information on materials and research relevant to particular problems in science education. Also, publishes occasional papers to help teachers utilize materials and research.

National Association for Environmental Education, 5940 S. W. 73rd Street, Miami, Florida 33143.

Publishes curriculum guides and a newsletter.

National Association for Research in Science Teaching, Department of Physics, Purdue University, Lafayette, Indiana 47907.

Publishes a newsletter and Journal of Research in Science Teaching.

National Association of Biology Teachers, 1420 N Street, N.W., Washington, D.C., 20005.

Publishes the journal, American Biology Teacher.

National Science Supervisors Association, c/o Kenneth W. Horn, Administrator, Denver Public Schools, 1521 Irving Street, Denver, Colorado 80204.

Publishes a newsletter and other resources, including A Sourcebook for Science Supervisors.


Publishes two journals, The Science Teacher and Science and Children.

School Science and Mathematics Association, P.O. Box 1614, Indiana University of Pennsylvania, Indiana, Pennsylvania 15701.

Publishes a newsletter and the journal, School Science and Mathematics. Also conducts workshops to train science teachers in use of new materials and techniques.


Resources for Keeping Up in Social Studies/Social Science Education

American Bar Association, Special Committee on Youth Education for Citizenship, 1155 E. 60th Street, Chicago, Illinois 60637.

Publishes papers, directories, and working notes on law-related education for pre-college level.

Center for Teaching International Relations, Graduate School of International Studies, University of Denver, Denver, Colorado 80210.

Publishes a newsletter and resource kits.

Center for War/Peace Studies, 218 East Eighteenth Street, New York, New York 10003.

Publishes two journals, Intercom and War/Peace Report and provides resources for program development.

ERIC Clearinghouse for Social Studies/Social Science Education, 855 Broadway, Boulder, Colorado 80302.

Provides information on materials and research relevant to particular problems in social studies/social science education. Also, publishes occasional papers to help teachers utilize materials and research.

Foreign Policy Association, 345 East 46th Street, New York, New York 10017.


Institute for World Order, 11 West 42nd Street, New York, New York 10036.

Sponsors a variety of educational programs and publishes books, a series (Ways and Means of Teaching About World Order), and Progress Reports.


Provides various resources for educational programs and publishes a newsletter, an annual report, various booklets, manuals, and teaching aids, and the Journal of Economic Education.

National Association for Environmental Education, 5940 S.W. 73rd Street, Miami, Florida 33143.

Publishes curriculum guides and a newsletter.

National Association for Humanities Education, P.O. Box 628, Kirksville, Missouri 63501.

Publishes Humanities Journal.
National Council for Geographic Education, 115 North Marion Street, Oak Park, Illinois 60301.

Publishes *Journal of Geography*, a newsletter, *Perspective*, a teaching aid series, "Do It This Way"; a series of papers on concepts in geographic education; and professional papers, bibliographies, and monographs.


Sponsors various programs for education in the humanities.

National Humanities Faculty, 1266 Main Street, Concord, Massachusetts 01742.

Provides financial and monetary resources for schools seeking to develop new programs in the humanities or interdisciplinary studies.


Publishes a newsletter, occasional papers, and the *Social Studies Curriculum Materials Data Book*, which is up-dated twice a year with information on new curriculum materials. Also conducts workshops for training teachers in the use and selection of materials.

Social Studies Development Center, 1129 Atwater Avenue, Indiana University, Bloomington, Indiana 47401.

Offers a variety of services, such as training of change agents and conducting workshops, as well as develops curriculum materials.

Society for History Education, California State University, Long Beach, California 90840.

Publishes a journal, *The History Teacher*.

USER FEEDBACK FORM

We hope to be able to revise this workbook eventually in order to make it more helpful to change agents. Users' feedback on the strong and weak points of the workbook would be invaluable for these revisions. If you have the time and interest, please answer some or all of the following questions and send the form to: Becker and Hahn, Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302.

OVERALL RATINGS
1. Overall, how would you rate this workbook?

2. What section of the workbook was most helpful to you? Why?

3. What section of the workbook was least helpful to you? Why? Any suggestions?

4. Comments and suggestions on the book as a whole:

PART I RATINGS
Part I contained two chapters. Chapter 1 explained the background of the development of the workbook and the assumptions underlying the approach of the workbook. Chapter 2 explained the purpose of the workbook, who would use it, and how to use it.

5. How would you rate Part I of the workbook?
USER FEEDBACK FORM

We hope to be able to revise this workbook eventually in order to make it more helpful to change agents. Users' feedback on the strong and weak points of the workbook would be invaluable for these revisions. If you have the time and interest, please answer some or all of the following questions and send the form to: Becker and Hahn, Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302.

OVERALL RATINGS
1. Overall, how would you rate this workbook?

2. What section of the workbook was most helpful to you? Why?

3. What section of the workbook was least helpful to you? Why? Any suggestions?

4. Comments and suggestions on the book as a whole:

PART I RATINGS
Part I contained two chapters. Chapter 1 explained the background of the development of the workbook and the assumptions underlying the approach of the workbook. Chapter 2 explained the purpose of the workbook, who would use it, and how to use it.

5. How would you rate Part I of the workbook?
6. Were the instructions for using the book clearly explained?
   Yes   No -- If not, would you comment on what aspect of the instructions was unclear?

7. Comments and suggestions on Part I:

PART II RATINGS
Part II contained two chapters. Chapter 3 dealt with the nature of the innovation and Chapter 4 dealt with your own characteristics as a change agent.

8. How would you rate Part II of the workbook?

9. Were the descriptions of the principles and variables involved in this part clearly explained?
   Yes   No -- If not, could you comment on what was unclear?

10. Was it clear to you why the principles and variables discussed in this part were important to developing a diffusion plan?
    Yes   No -- If not, could you comment on what was unclear?
11. Were the guiding questions clear?
   Yes ______ No -- If not, could you comment on which questions were unclear and why?

12. Were the guiding questions helpful to you in developing your plan?
   Yes ______ No -- If not, could you comment on which were not helpful and why?

13. Comments and suggestions on Part II:

PART III RATINGS
Part III contained five chapters. Chapter 5 focused on defining your system. Chapters 6 and 7 dealt with functional roles and job-related roles, respectively. Chapter 8 dealt with occasions and timing. And Chapter 9 examined communication in your system.

14. How would you rate Part III of the workbook?

   Very Clear / Helpful / Clearly Written / Very Clear
   Clearly / Helpful / Clearly Written / Clearly
   Fairly / Helpful / Clearly Written / Clearly
   Not at all / Helpful / Clearly Written / Clearly

15. Were the descriptions of the principles and variables involved in this part clearly explained?
   Yes ______ No -- If not, could you comment on what was unclear?


16. Was it clear to you why the principles and variables discussed in this part were important to developing a diffusion plan?
   Yes _____ No -- If not, could you comment on what was unclear? ____________________________

17. Were the guiding questions clear?
   Yes _____ No -- If not, could you comment on which questions were unclear and why? ____________________________

18. Were the guiding questions helpful to you in developing your plan?
   Yes _____ No -- If not, could you comment on which were not helpful and why? ____________________________

19. Comments and suggestions on Part III: ____________________________

PART IV RATINGS

Part IV contained two chapters. Chapter 10 was designed to help you put all your diagnoses together into a coherent plan. Chapter 11 discussed evaluation of progress in diffusing your innovation.

20. How would you rate Part IV of the workbook?

   Very / Helpful / Fairly / Not at all / Very / Clearly / Fairly / Not
   Helpful / Helpful / All Helpful / Clearly Written / Clearly / Clearly / Not
   Written / Written / Written
21. Were the methods suggested in Chapter 10 for pulling together your plan helpful?
   Yes  No -- If not, could you comment on deficiencies in the methods suggested?
   __________________________________________
   __________________________________________

22. Comments and suggestions on Part IV: __________________________________________
   __________________________________________
   __________________________________________

BACKGROUND INFORMATION
Position: ______ Teacher (subject: ____________)
________ Department chairman (subject: ____________)
________ District curriculum specialist (area: ____________)
________ Principal
________ Other (Please specify: _____________)

Grade Level(s): _____________________________
To what extent did you use this workbook?
________ Read it but did not actually use it with an innovation effort
________ Used it occasionally to help with some aspects of one innovation effort
________ Used it systematically and continually in working through one innovation effort
________ Used it occasionally to help with some aspects of several innovation efforts
________ Used it systematically and continually in working through several innovation efforts
Innovation(s) for which this workbook was used: ____________________________

__________________________

__________________________

__________________________

Size of system you determined to be relevant for your diffusion efforts
(if your department, give number of teachers and students involved; if
entire school district, give number of students; etc.): ______________________

__________________________

__________________________

City and State: ____________________________

We may want to follow-up on some of the feedback forms we receive from
users of the workbook. If you would not mind being called and inter-
viewed, should we decide to do so, please give your name, phone number,
and address below:

Name ____________________________ Phone ____________________________

City ____________________________ State ____________________________ Zip ____________________________

THANK YOU!