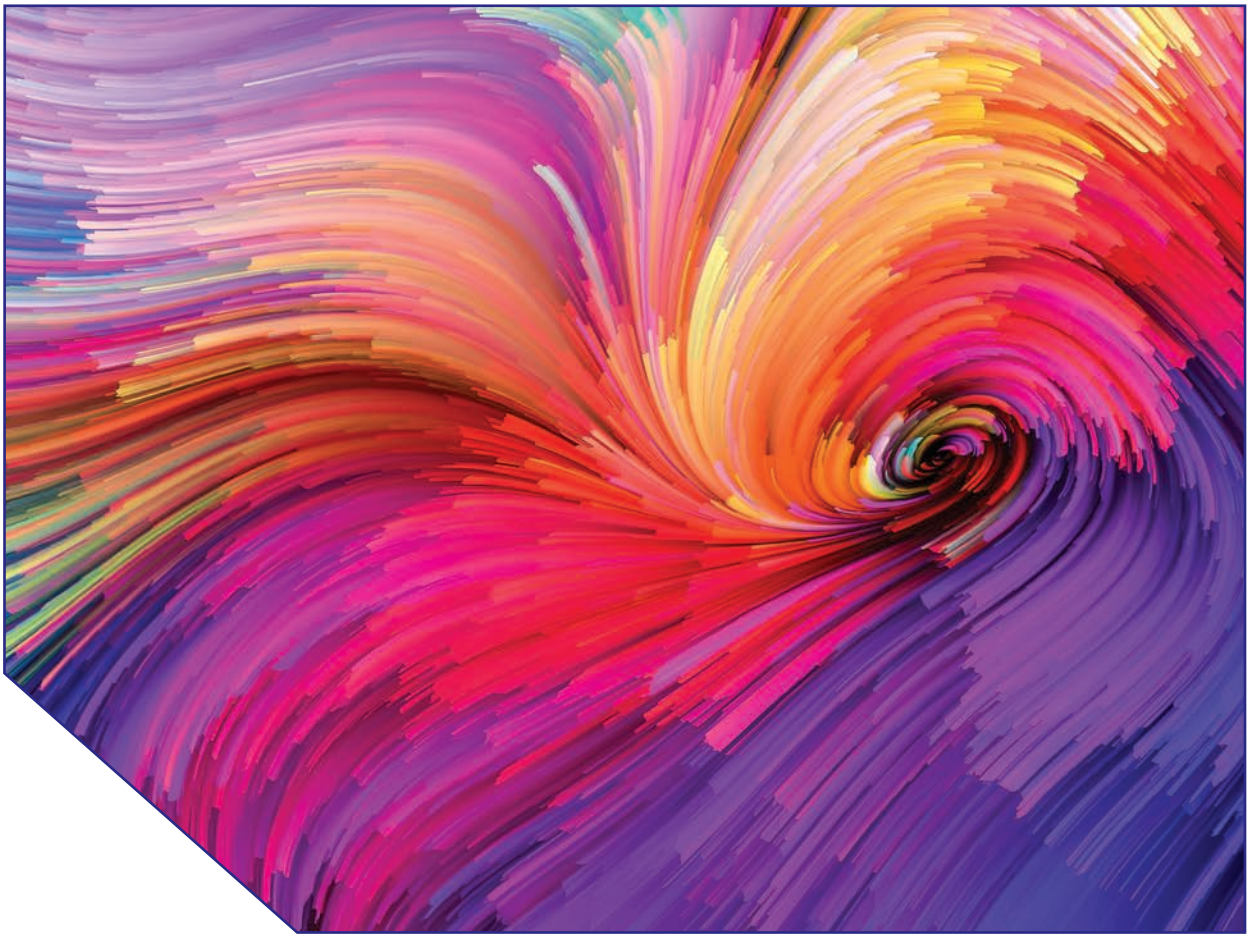
The Pearson Educational Leadership Series

IMPLEMENTING CHANGE

Patterns, Principles, and Potholes

FIFTH EDITION



Gene E. Hall
Shirley M. Hord

FIFTH EDITION

IMPLEMENTING CHANGE

Patterns, Principles, and Potholes

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Dedication

This edition of Implementing Change is dedicated to my career-long colleague, Shirley Hord. She has been having some health challenges, but her spirit is strong. I first met Shirley when she joined our experimental teacher education program team as a Master Teacher. She indeed was a master teacher and has continued to be one throughout our more than five decades together. Shirley is driven by her passion for learning and sharing with friends and colleagues so that all of us can be members of her Professional Learning Community. She has been outspoken and incessant in wanting to see every community has the best teachers and schools for children. She has championed everyone learning in TX, across the U.S., and around the world.

Gene E. Hall

As we said in the last edition, we dedicate this book to our many CBAM colleagues and friends around the world from whom we have learned so much. We offer this book as a way of sharing what we have learned along with describing our current questions and dilemmas.

Through continuing collaboration, we can increase everyone's learning about how to most effectively initiate, implement, and sustain change.

Gene E. Hall

Shirley M. Hord

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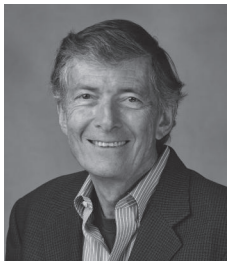
ABOUT THE AUTHORS



Gene E. Hall, PhD, Professor Emeritus, University of Nevada, Las Vegas, and President, Concerns Based Systems, Inc. Across his academic career, he has been a full professor at four universities and served as the Dean of the College of Education at two. Dr. Hall is internationally recognized for his career-long focus on developing new understandings about the change process in organization settings. He regularly serves as a consultant for schools, school districts, businesses, and state leaders on the implementation of various innovations and change processes from a Concerns Based perspective. In addition to his work in the United States, he regularly collaborates with colleagues in other countries and serves on doctoral committees in relation to facilitating, evaluating, and studying change processes. His more recent research has examined relationships between the Change Facilitator Style of leaders and outcomes such as increases in student learning. Dr. Hall has had a parallel academic career in regard to innovation in and national accreditation of teacher education. He is a coauthor of *The Foundations of American Education* (Pearson), now in its 17th edition, lead author of *Introduction to Teaching: Making a Difference in Student Learning* (Sage), now in its 3rd edition, and first editor of *The Handbook of Teaching and Learning* (2018) (Wiley & Sons).

Shirley M. Hord, PhD, was the first Scholar Emerita at the Southwest Educational Development Laboratory and is currently Scholar Laureate in association with Learning Forward (previously the National Staff Development Council). She authors articles and books on school-based professional development, school change and improvement, and professional learning communities. A sampling of her publications includes *Learning Together, Leading Together: Changing Schools Through Professional Learning Communities,* Teachers College Press (2004); with Patricia Roy, *Moving NSDC's Staff Development Standards Into Practice: Innovation Configurations,* National Staff Development Council (2003); *Leading Professional Learning Communities: Voices from Research and Practice,* Corwin Press (2008); and with Edward Tobia*, Reclaiming Our Teaching Profession: The Power of Educators Learning in Community,* Teachers College Press (2012). In addition to working with educators at all levels across the United States, Canada, and Mexico, Dr. Hord serves as an educational consultant worldwide, in Asia, Europe, Australia, and Africa.

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PREFACE

Welcome to the fifth edition of *Implementing Change: Patterns, Principles, and Potholes.* That we have had the opportunity to prepare five editions of this book has come as quite a surprise. Through communication with colleagues and readers of the earlier editions, it is clear that many have found the book to be a useful source of ideas for understanding, facilitating, and studying change processes. We have learned from writing each edition, and most certainly have new ideas, stories, and study findings to report.

With so much change happening all around us, it makes sense that a book on change would need change, too. In writing this new edition, a challenge for us as authors has been to make important changes and updates while preserving the foundational content that was so useful in the first four editions. It is an important balancing act. We think we have accomplished both objectives.

NEW TO THIS EDITION

Important changes to this edition include the following:

- As before, the major construct that is the topic of each chapter is *evidence based.* For this edition, up-to-date examples of how each construct and tool are being applied have been added.
- The findings from important recent research studies are reported.
- An entirely new feature is the story of two school districts engaged with implementing change. One district, Green Valley Independent School District, effectively applies the constructs presented in each chapter. RedFern Independent School District effect less understanding and less attention on facilitating change. Both districts are composites of places we know. However, these two cases do not represent "real" places.
- The focus is now on all three phases of implementing change, not just "implementation."
- The flow of topics within chapters and across chapters has been structured in a more logical way that will make it easier for the reader to understand.
- The Sustaining Phase receives more emphasis throughout. This is the phase we know less about and infrequently accomplish.
- There are several new appendices. For example, we receive a lot of questions about what is entailed in doing One-Legged Interviews. Appendix B has the overall design, intent, and example questions.

- There are new end-of-chapter Discussion Questions, and items in the Applying Constructs in Facilitating Change, and in Research and Evaluation sections, have been sharpened.
- The Concerns Based Adoption Model (CBAM) (pronounced "see-bam") continues as the overarching framework, but with more illustrations of how the whole of change processes need to be considered. There also is more inclusion of other models, such as GTO, in Chapter 9.
- There is more attention on how groups and whole systems change. Too often in the past, readers have overly attended to what happens with individuals. The CBAM research agenda always has had a priority on having reliable and valid data for individuals. When there is quality individual data, aggregating to larger units is possible. However, when the measures are of larger units, it is impossible to draw inferences about subgroups and individuals.

WHY IMPLEMENTING CHANGE CONTINUES TO BE SO IMPORTANT

Change is one of the few constants in our world. There is no escaping the fact that we are living in a time of change. An obvious indicator of continuing change is most certainly the types and uses of technology in our work and in applications such as social media. The press for schools to only use *Evidence-Based Programs* (EBP), or *Evidence-Based Intervention*s (EBI), is just one of the changes being experienced in education settings. There are many societal changes too, such as Brexit and the "Trump Orbit." There also are continuing changes in our workplaces and our personal lives. Where do implementing electric cars and driverless cars fit into our near future?

Instead of being hapless captives of change, we believe that it is important to understand how change processes work, how to facilitate change, and how to study change. It is not enough to become expert in a particular change; we also need to understand how the change process as a whole works.

One clear conclusion that we have offered in the past still holds. Those who initiate change and those who study it should be able to predict much more about what happens during this process than is typically the case. We also should be much better at attending to the needs of the people involved and preventing much that often goes wrong. Hopefully, our attempt to pass on some of what we have learned will be of help to you and the others with whom you are engaged during change.

THE TITLE

The title of this book—*Implementing Change: Patterns, Principles, and Potholes*—is fittingly representative of its content. One of the problems in the field of change is that there is no agreement on the meaning of commonly used terms. For example, the word *change* can be a noun (e.g., the change that is being attempted) or a verb (e.g., changing the culture). The word also can be used to represent the whole of a change effort (e.g., "We have a big change underway!").

Having the term *implementing* as the first word in the title adds an important emphasis. In our view, the change process has three major phases: Creating, Implementing and Sustaining. Implementation is an important phase, but it is only one of the phases. Implementing change entails all three phases.

The terms *patterns, principles,* and *potholes* have been carefully chosen as well. There are "patterns" in change processes, and most of this book is about describing and naming those patterns. In the study of change, as in the so-called hard sciences, there is widespread agreement on a number of points, or "principles." We certainly do not know all that we should; however, some elements of change are understood and agreed on by many of us. All of us know full well that "potholes" may be encountered throughout a change process. Although the inclination is too often to give too much attention to these problems, it is also foolish to ignore them.

PART I: THE CONTEXT FOR IMPLEMENTING CHANGE

The first chapter in each edition has presented a set of *change principles*. In each edition, we have refined the set. Each of these principles should be accepted as a given. There is no debate about their validity.

Once you read each change principle, you will likely say, "Well, of course. I knew that." However, you will also be able to think of change initiatives in which that change principle was ignored. Just because we know something doesn't mean that we always act accordingly. Incorporating these change principles alone should lead to fewer surprises and more success in your change efforts.

In Chapter 2, we describe another basic change concept: *interventions*. As with other terms, the definition of interventions varies across disciplines. For example, in public health, the term is a generic reference to the program that is being adopted and the technical assistance done to support its implementation. In the Diffusion Perspective, the definition seems to vary between representing the change and supporting actions to obtain the adoption decision. In the CBAM perspective, the definition is set: "actions and events that affect a change process." The change itself is called an *innovation*.

PART II: THE PEOPLE PART OF CHANGE: THREE DIAGNOSTIC DIMENSIONS: CONCERNS, USING, AND FIDELITY

An organization or a large system is not changed until the individual members of that unit use the new way. Therefore an important unit of change has to be each implementer. Part II introduces the three *Diagnostic Dimensions* of CBAM. Each is an evidence-based construct with related tools that can be used to facilitate, evaluate, and research implementation initiatives.

Chapter 3 introduces ways to think about and appraise the change itself. In Change Science, Fidelity of Implementation (FOI) has become a key topic. There can be dramatic differences between what the developer of an innovation has in mind and what is actually implemented. These different forms are called *Innovation Configurations.*

A second CBAM Diagnostic Dimension addresses the personal side of change. Even when change takes place in organizational settings, personal feelings, moments of joy, and

frustrations are part of it. Understanding these *concerns* is addressed in Chapter 4. Chapter 5 is about use and nonuse of innovations. This is not a dichotomous phenomenon. Instead there are different *Levels of Use* as implementers progress from nonuse, to novice user, and on to expert. Change Facilitators and program evaluators should pay close attention to these different ways of "using" an innovation.

PART III: LEADING CHANGE ACROSS THE ORGANIZATION

The chapters and constructs in this part address factors related to implementing change at the organization level. One of the areas in which our research has continued to advance is understanding and documenting the significant difference that change leaders can make. In Chapter 6, three Change Facilitator (CF) Styles are described. A number of studies have documented the differences in innovation implementation success that are related to how leaders lead. We now have several studies documenting relationships between CF Style and student test scores. In Chapter 7, the importance of understanding organization culture, especially the construction of *Professional Learning Communities (PLCs)*, is examined.

A critical implicit assumption that many make is that managing change processes is controllable by the leaders. However, in reality even the change leaders do not control all parts of the process. We call one key component of the uncontrollable *Intervention Mushrooms,* which is the topic of Chapter 8. Just as the name suggests, this species of intervention grows in the dark and is not controlled by the change leaders. Some are skilled at detecting and addressing Mushrooms, whereas others fail to see them at all. Although we think that this chapter will be of particular interest, an important caution is necessary. The chapter on Mushrooms comes after seven other chapters, each of which presents a construct that needs to be understood *before* it is possible to explore the dynamics of Mushrooms and what can be done about them.

PART IV: DIFFERENT PERSPECTIVES FOR UNDERSTANDING THE BIG PICTURE OF CHANGE: SYSTEMS, DIFFUSION, AND ORGANIZATION DEVELOPMENT

The chapters in Part IV introduce three other perspectives for understanding change that are classics. Each has an extensive history of research, model building, and applications. Each also offers a number of tools that can be used to facilitate, study, and evaluate change efforts. In Chapter 9, *systems and systemic thinking* are the topic. New to this chapter is description of a systems change model called Getting to Outcomes (GTO). It addresses capacity and capacity building, which are important system factors.

Chapter 10 introduces another of the classics: *Diffusion*. This perspective had its beginning early in the twentieth century, with studies of the varying rates and willingness of farmers and others to adopt innovative practices. It very quickly became obvious that not everyone adopts an innovation at the same time. In Chapter 11, another perspective is introduced: *Organization Development (OD).* This approach focuses on group dynamics and the process skills that can help teams and whole organizations be more effective. Organization Development offers a number of techniques and ways to facilitate change that can be useful.

PART V: COMBINING VIEWS: PERSPECTIVES, CONSTRUCTS, TOOLS, APPLICATIONS, AND IMPLICATIONS

Chapters 1 through 11 build from the individual, to the group, to whole organization and system views. In the last chapter, Chapter 12, we review and extend applications of the constructs that were introduced in the previous chapters. Data sets and findings from several studies are used to illustrate how combinations of change process constructs and measures can be applied. There are conceptual explorations of the relationships among the CBAM Diagnostic Dimensions. The importance of conducting what we call *implementation assessments* is introduced. Another topic is using recent research findings to understand more about the differences leaders make. Also discussed is the importance of sustaining change. The final topic addresses the importance of ethics in change agentry.

CHAPTER ORGANIZATION

The main topic of each chapter is a key change construct that is *evidence-based*. The construct is introduced along with the supporting research. The measurement tool(s) is described along with summaries of key study findings. Each chapter also has a number of purpose-built features that are intended to help you draw connections between what you know now and what we would like you to understand when you have finished reading each chapter.

To help ground the basic pattern being presented, every chapter begins with several quotes, which will probably be familiar to you. The ideas presented in the chapter illustrate how these quotes can be analyzed in terms of their meaning for change process success. To help you focus on some of the key topics in each chapter, a set of Learning Outcomes is offered near the beginning. Each chapter ends with a return to the same Two District Cases. The two districts have very different approaches to implementing change. The efforts of each district are analyzed using the evidence-based construct introduced in each chapter.

To aid in remembering key points, with the exceptions of Chapters 1 and 12, each chapter has a box of "Indicators" of the chapter's construct, as well as a table of "Implications for Change Facilitators." This feature lists several succinct suggestions for ways to use the ideas introduced in each chapter. At the end of each chapter are a number of Discussion Questions and two suggestions for "Applications." One set of suggestions is about change facilitating activities that you could try. The other set of suggestions is for research and evaluation activities.

*****

So here it is—the fifth edition of *Implementing Change*. We hope that it will help you improve your understanding of the change process. We hope it provides useful ideas and approaches for facilitating change. We also hope we have provided strong examples of how each of the constructs can be used in assessing change processes and in conducting program evaluation and research studies. If you are primarily interested in research, plenty of ideas are scattered throughout that need to be systematically examined. Let us know what you are thinking of studying and what you learn.

ACKNOWLEDGEMENTS

We gratefully acknowledge and appreciate the focused efforts and contributions of members of Pearson Education, especially Aileen (Berg) Pogran, Executive Portfolio Manager. Even though new to the company and therefore this project, she jumped right in to support our efforts to have this be best edition yet. The production team including Lady Hope Maro, Gowri Duraiswamy, Tim Bennett and the many others worked long on copy editing, page proofing, and guiding the product to publication.

We appreciate three well established scholars and longtime colleagues, Bruce Joyce, Barrie Bennett, and Abraham Wandersman, contributing thoughtfull forwords.An additional thanks to Dr. Wandersman and his graduate students at the University of South Carolina. It has been fun and a special learning experience to have been part of their change class meetings each week via technology. A unique additional resource has been Stan Murawski's review of the fourth edition and our fun and insightful discussions. With his career-long work in the computing world, “Stawsh” brought a different perspective to thinking about implementing change.

We would like to thank the reviewers of 5e for their valuable feedback: Eric Houck, University of North Carolina at Chapel Hill; Elizabeth Murakami, Texas A&M University—San Antonio; and Eric Camburn, University of Wisconsin—Madison.

Gene E. Hall

Shirley M. Hord

CONTENTS

CHAPTER 11

FOREWORD

PROFESSIONAL DEVELOPMENT AND IMPLEMENTING CHANGE

Bruce Joyce

The fifth edition of *Implementing Change* lays out the Concerns Based Adoption Model (CBAM) and richly illustrates its components and how to use them. The core concept is that *Change is Learning*. When a change is really implemented, something has been learned—well learned. CBAM is a process that takes us from when something is first thought about to where full-fledged learning has happened and the change has been implemented. The CBAM process adapts to a very large range of changes in education and other fields as well.

And a change can be initiated at any level of an organization—by a single teacher or a small group of colleagues, a grade-level team or department, the lead teachers of a school, the policymakers and administrators of a district, or a state school system, or it can be a product of a movement across the country that affects large numbers of states and school districts. In all cases change facilitation teams are needed; even a small group of teachers need to be their own facilitation team. In all cases that team needs to develop a picture of the change—and what it will look like when implemented—that will guide the process and determine when it has come to life. When the smallest unit—the individual—decides to make a *change*, that person will *learn.*

Sometimes—probably often—**administrative action** is needed. For example, when a small team wants to provide time for professional development, it will find that some others have to take action, which often means *learning* by them.

Professional development may be needed. Our small team may decide to obtain interactive whiteboards and, when they are delivered, discover that the change is *learning* that requires assistance—sometimes more extensive training than was first envisioned. Finding good help can involve another loop of learning.

Organizational change usually requires **collaboration** by personnel throughout the organization. A small change in a state curriculum can require *learning* by district personnel, school staffs, units within the school, and individual teachers.

Shirley and Gene lavishly illustrate a wide variety of initiatives. Their book is a treasure trove of examples where the implementation of change is discussed.

I want to illustrate how a major coming development in education begs for the use of CBAM as it takes hold in more and more places, eventually appearing during the next few years in virtually every state throughout the country. The change is the development and implementation of pre-kindergarten education for four- and three-year-old children.

Pre-K Schooling

Increasingly, administrators and members of policy boards of states and school districts, as well as faculties and parents of schools, including charter schools, have begun advocating for the extension of education to four- and even three-year-old students—not to mention nursery schools for the really young. It is an idea that is gradually taking hold. Will it be a change that requires *learning?* Yes and WOW yes.

Now, let's imagine how and in what organizations CBAM will be needed.

Shall we start with state and district policy makers? Here are a few areas where they will need *learning.* To proceed, they will need to study what those levels of schooling for three- and four-year-old students might look like in curricular and instructional terms; what kinds of information (and discussions) the public will need and how to inform folks and arrange meetings; and what fiscal provisions will be needed. They will need to figure out what facilities will be like and how they can be financed, how to find and educate teachers for the new curriculums and ages of students; teacher education programs will need to add programs and augment others. And, let's not forget what school district officials will need to *learn,* including how to involve and educate parents and community members. That's the short list!

Will CBAM be needed? You bet! And without the CBAM process, the wheels that will be spun are many and serious, and the implementation will begin without being fully thought through and well organized. And, some big mistakes lurk, waiting to be made. We do not want the agonizing processes that accompanied the implementation of kindergarten.

A couple or three decades ago, the movement to extend schooling to kindergarten reached the tipping point in the states and resulted in the implementation of, first, half-day and then, in many places, full-day kindergarten. Without the CBAM process, a huge pair of mistakes was made in most states, districts, and schools. That was to take the age of first grade and use it for kindergarten, making the ages of grades one through twelve rise also. High school graduation was later and the high school, designed for emerging young adults of 16 and 17, now serves students of eighteen, and even 19, delaying the entrance into work and college, both of which are hugely costly.

Further, the school that was designed for emerging young adults of 16 and 17 is not the best possible fit for older students.

Whereas five- and six-year-old first-grade students were formally taught to read and write, kids that age are in a curriculum where literacy is approached much more informally. The gifts of reading and writing are delayed, and the postponement has not improved literacy.

I am almost certain that, if the decision-makers had been guided by the CBAM process, a better solution would have emerged.

I am equally certain that if the state policymakers are guided by CBAM as education for four- and three-year-olds is considered, they will pass CBAM to the districts and schools, and the result will be palpably better education.

I do not know a better change process than what CBAM offers.

Bruce Joyce
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Joyce's most recent book is *Realizing the Promise of the 21st Century*. The ninth edition of *Models of Teaching: The Heart of the Core*, is in press. Both are with Emily Calhoun.

USING CHANGE CONSTRUCTS TO THINK CONCEPTUALLY

Barrie Bennett

Playing Seriously with Change

This is my forty-seventh year of classroom teaching, and I continue to teach in kindergarten to grade 12 classrooms (as well as in undergraduate to graduate programs). That said, most of my work over the last 34 years has been on long-term systemic change projects in three countries (Australia, Canada, and Ireland) focused on the design of powerful/effective learning environments.

As part of that work to shift systems instructionally, we are always working at intersecting the existing wisdom on curriculum, instruction, assessment, change, and systemic change. What we have learned over those 47 years is that understanding and acting on educational change wisdom is key to becoming collectively consciously competent. This next edition of Hall and Hord's text focuses on ways of applying elements of the Concerns Based Adoption Model that we've integrated into our systemic change work over the last thirty-plus years in about thirty-four districts. Interestingly and unfortunately, we continue to find the failure to attend to the change research inevitably emerges as the tragic flaw in most districts change efforts.

Stepping into the classroom, I recently engaged 32 grade-one students at Two Rocks Primary School in Western Australia in how to make a Mind Map on what is meant by, "Australia". I told them I was from Canada and I knew nothing about Australia. So I did a big Mind Map of their ideas; then they did their own. You just had to laugh; for 45 minutes they worked non-stop on their maps. Key here regarding "change" is that this was their first attempt; they were "mechanical users" of this innovation. Importantly, one of my earlier graduate students, a kindergarten teacher (who is now just finishing her Ph.D.) had her kindergarten students doing Mind Maps and Concept Maps. In terms of "skill level", I wonder how skilled those grade-one students would have been at doing a Mind Map on Australia if they had done Mind Maps and Concept Maps in kindergarten.

Taking this one step further, in the Northern Lights School District in Northern Alberta, I watched grade-four students summarize a unit of study before writing a final unit quiz. As I walked around, I saw students integrating multiple instructional organizers. I saw fascinating "configurations" and refined "integrative" users of instructional innovations. One student's work was a convergence of a Mind Map, a Word Web, two Venn diagrams, one Fishbone diagram, and a dichotomous Concept Attainment data set on renewable and non-renewable resources embedded in three cross-sectional diagrams. When I asked the teacher how many Venn diagrams the students had done; she asked, "This year?" I said, "Sure". She said, "About 40 but at least 70 since kindergarten." I had worked in this district for five years on the idea of merging multiple innovations. The teachers had played with Levels of Use over time; they collectively planned for both "getting better" and "merging multiple innovations" over the grade levels. You sense that idea of being collectively, consciously, competent.

In terms of the research on educational change, I've found two non-negotiable change concepts a district must respect if they want to not only "get better" at instruction but to "trust" assessment data: (1) skill acquisition/transfer of learning and (2) shifting student and teachers' Levels of Use over time.

First, in terms of skill acquisition and transfer of training, Showers and Joyce's inquiry and research gave us the skill training model and the importance of people coming in teams to workshops and going back to assist one another (a process they called Peer Coaching). Their work informed us that educators require a demonstration and/or a model. They also need to reflect on it, discuss it, get a chance to practice it, and get feedback. Then, when returning to their school, they need to shift it into classroom use—and again, they need to reflect, have conversations, and "coach" each other to make sure they are doing it "right". This piece of information has been one of the most important ideas I've experienced as a teacher and teacher educator. Their work is fundamental to our work on systemic change.

Second, in terms of shifting skill levels of instructional innovations, Hall and Hord's inquiry and research resulted in the Concerns Based Adoption Model and the Levels of Use Diagnostic Dimension. It's one thing to "transfer learning" another to become more effective over time. This failure to assess the skill level of teachers and students is a key reason prior to assessing students learning is a major concern with interpreting effect size research.

Shifting back to our work systemically, we added information from Hall and Hord's work into the last chapter of our first book on Cooperative Learning back in the late 1980s. Their information on Levels of Use became a complete chapter in a later book I wrote, titled *Graphic Intelligence*, and is currently driving the development of rubrics related to teacher self-regulation in the latest book, titled *Instructional Expertise: Conversations With Myself and Others*. Every chapter contains key ideas from Hall and Hord's work on change. This new text is being used as part of a two-year extension of a twenty-year project in Western Australia with the State School Teachers Union of Western Australia. In addition, we are also applying Hall and Hord's work with secondary teachers in Ireland. In this project, we are now having selected groups of teachers to fill out Stages of Concern protocols. This project in Ireland is now in its eleventh year and we "teach" both the process of Peer Coaching and Levels of Use as integral parts of the instructional program. We now have over 45 percent of secondary teachers in Ireland involved in the project.

For myself and my colleagues involved in changing systems over time, this next edition of *Implementing Change: Patterns, Principles, and Potholes* will enrich the change literature and provide us with additional wisdom to deal with the delightful complexity of instructional change.

Barrie Bennett, Ph.D.,
Professor Emeritus, University of Toronto, Canada

CHANGE IS HARD!

Abraham Wandersman

Change can be threatening.
Change can be uncomfortable.
Change can be unclear or unknown.
Change can be more than replication with fidelity.

Gene Hall and Shirley Hord hold these as truths and help us understand each of these sentences with conceptual clarity, measures, and ways to think about reducing barriers to change.

Not only are these truths for Hall and Hord; they reflect the common experiences of many of us who want to help bring a program, practice, process, or policy into an organization. The purpose of bringing change into an organization can include helping the organization become more effective and efficient and/or to achieve more positive outcomes in programs served by the organization.

Asking/getting people to change can feel threatening and uncomfortable. Hall and Hord have developed a concerns framework that clearly puts the ideas out there in ways that ring true and illuminate "resistance" and how it might be approached. Hall and Hord have *Stages of Concern* to help us understand the threats.

Change can be unclear and unknown. Often the change that is being sought is not very clear to those who are intended to implement the change. This is clearly a problem. And, if truth be told, those developing the new idea/program/policy may not be clear themselves on what the idea/program/policy is. Hall and Hord have the *Innovation Configuration* Map to help provide clarity on what the new idea/program/policy is.

Change can be more than replication and fidelity. While there has been a major movement to replicate evidence-based interventions with fidelity, this movement has encountered major difficulties (e.g., not working equally well in diverse settings) (Wandersman, Alia, Cook, Hsu & Ramaswamy, 2016). Indeed, Hall and Hord point out that "mechanical" replication is a midpoint in a "true" understanding of an idea/program/policy and that there are *Levels of Use* than replication with fidelity.

To add to the conceptual advances above (and many others in this book), Hall and Hord have provided ways to measure the concepts and empirical evidence of their usefulness.

It is the brilliance of their way of looking at change (and lack of change) that attracted my colleagues and I to bring CBAM concepts and measures into public health (they apply equally well in public health as they do in education and other areas). We started using CBAM concepts (with appropriate training from Gene) in the early 2000s in our work on Getting to Outcomes (GTO). GTO has been applied to substance abuse prevention, underage drinking prevention, positive youth development, home visiting programs, teen pregnancy prevention, emergency preparedness, suicide prevention, and sexual harassment prevention. CBAM has been relevant in this wide variety of work.

I have used previous editions of *Implementing Change* as the main text in my course on Organizational Psychology—taught mostly to graduate students in clinical, community, and school psychology. We used the book because just about everybody is interested in bringing change into an organization. The students enjoyed the ideas, the examples, and the exercises in using the concepts and measures. They were aided by Gene waking up early in the morning with a cup of coffee and delighting us in a dialogue about the ideas in the chapters.

In sum, the book is a treasure for academics studying change, for practitioners trying to bring about change, and for students learning about why change is difficult and what to do about it.

Thanks, Gene and Shirley, for improving upon a classic.

Wandersman, A., Alia, K., Cook, B. S., Hsu, L.I., & Rarmaswamy, R. (2016). Evidence-Based interventions are necessary but not sufficient for achieving outcomes in each setting in a complex world: Empowerment evaluation, Getting to Outcomes, and demonstrating accountability. *American Journal of Evaluation*, *37*(4), 544–561

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PART I

TWO BASICS OF IMPLEMENTING CHANGE:

Assumptions & Interventions

Whenever the topic of change is brought up, there will be immediate reactions and a regaling of stories. "Oh yes—the last time we had to make a change, it was horrific." "We got a new boss who's only agenda was to undo everything that we had been doing." "I don't know. I really saw important benefits of the last change we implemented."

Implicit within each of these quotes, and the many others that could be cited, are beliefs about what is entailed in implementing change. Every one of us has, and is, experiencing change. As a result, we have our own set of assumptions about what change entails. We also have ideas about the best ways to make change successful. The authors of this text most certainly have their assumptions and expectations. To help you, the reader, in understanding our views, we present them in the first two chapters.

In Chapter 1, we state our assumptions about implementing change. We have done this in each edition of this text. Of course, we have adjusted some and changed some out across the editions. We state these as a set of **Change Principles**. As in the physical sciences, these represent basic givens. There is no need to debate the existence and/or the importance of each of these. In this edition, we have updated and emphasized these Change Principles even more.

Chapter 2 is about **interventions**—the actions and events that affect how a change process unfolds. Leaders and other facilitators need to plan for and take steps to initiate, support, and monitor change efforts. These actions range from the moment-to-moment informal talks and e-mails to the multiyear accumulation of actions that result in the themes and patterns of change leadership.

Taken together, these two chapters address two basics of implementing change. Everyone brings their own set of assumptions. Everyone also has experienced the actions that are taken to support, and in some cases inhibit, implementing change.

TWO CASES: THE STORIES OF TWO DISTRICTS IMPLEMENTING CHANGE

To illustrate how the various change constructs and measures can be used, we have developed two cases. They represent two ways of using change science constructs to implement change. The same two districts are used throughout. As you will see, what each district does will to some degree facilitate movement toward having change success. One district will apply the change science constructs and tools in more effective ways.

Based on your experiences, you will likely recognize elements of each district's story. However, the two cases are not based on the experiences of any one, or two, "real" districts. They are composites of several districts where we have conducted studies and/or coached change facilitators.

The following are brief introductions to each district. As you read each chapter, you will want to keep in mind each district's story. The stories illustrate ways change science constructs can be used to understand, facilitate, and assess change processes. One major innovation will be used, although other changes will show up from time to time.

Meet the Two School Districts

Green Valley ISD—Doing "Right"

Green Valley ISD has had the same superintendent for the last nine years. The board has had continuity over the last eight to ten years. The district has 60-plus schools, including several

charter schools. The community is a mix of older, established neighborhoods and a region where there are many new houses and rapid growth. Many of the teachers and principals were students in the district. Community members have seen their having a responsibility to serve on the board and support "their" schools.

There is open communication up and down, as well as across the different levels of the district. For example, each month the principals meet with the district office leadership. There is an open sharing of what is working, and what isn't. Principals are encouraged to try different things. If something doesn't work well, the focus is on what is learned, not finding scapegoats. When one school succeeds, there is openness to share with others.

Also, there has been a continuing norm of hiring locally. Most teachers are hired from the community. Over time they become assistant principals, principals, and district office staff. Superintendent Martha Johnson is local too.

The Green Book One relevant activity had its beginning some eight years back. The board asked the superintendent, "What can be done to improve test scores?" The superintendent responded by forming a task force. They reviewed data, looking at each school's performance and needs. They considered what was entailed in school and district improvement processes. The task force then produced a final report that included a series of recommendations. The report had a green cover, and ever since has been known as "The Green Book." It has continued to be the guiding document for planning and implementing change.

Over the last ten years, the Green Book has represented the vision and guide for district and school improvement. There were no revisions, no new task forces, no new reports; instead, the focus was on implementing the recommendations. This report did indeed become a Strategic Plan. The Green Book report recommendations included using data to make instructional decisions, empowering each school to take the lead in selecting evidence-based strategies that would work in that school, and an emphasis on continuing professional development and learning for all adults, as well as for students.

Green Valley ISD Staff Include:

- *District Office:*
  - Martha Johnson, Superintendent (9th year)
  - Dr. Leslie Hanson, Assistant Superintendent for Curriculum, Instruction, and Assessment
  - Stephanie Struthers, Director of Professional Learning
  - Dale Anderson, Director of Assessment
  - Julie Jones, Math Curriculum Coordinator
  - Bryan Gunther, Science Curriculum Coordinator
  - *Teacher Leader Math Coaches:*
    - Mary Livingston, Middle School Math Dept. Chair
    - Allen Parker, High School AP Math Teacher
    - Roberta Johnson, 5th Grade Math Teacher
- *Mountain View High School:*
  - Michael Major, Principal (4th year)
  - Bob Smith, Assistant Principal (2nd year)
  - Matthew Chin, Instructional Coach (1st year)

- *Lincoln Middle School:*
  - Elaina Gomez, Principal (2nd year)
- *Washington Elementary School:*
  - Fred Johnson, Principal (6th year)
  - Carl Smith, Lead Science Teacher
  - Bev, Instructional Coach

Red Fern ISD – Doing "Less Right"

Red Fern ISD is in another part of the state and is of the same size as Green Valley ISD. It too has some 60 schools, including a few charters.

There has been continual turnover in school board membership, and over the last ten years there have been three different superintendents. Each superintendent has had to deal with a 4/3 split school board. Red Fern ISD personnel have looked forward with dread to each November's board election. The most vocal faction has pressed for the district to be "run like a business. For example, the current majority wants to do away with the current teacher pay table that is based on years of experience and advanced degrees. Instead they are pushing for "what we have in business, a set of Pay Bands based on performance. Having a master's degree or National Board Certification is not what's important. What is happening with the test scores should be the single most important factor in teacher, principal, and school evaluations each year."

The current superintendent, Jerry White, came to the district from another state eighteen months ago. The previous superintendent, Harold Wilson, was only there two and one-half years, before moving on to a large urban district. The majority of the school board members campaigned with the theme that "schools should be run like a business." Several have greater political aspirations, including running for the state legislature.

There are few expressions of support from the board or the superintendent for teachers or principals. Low test scores, or any sort of scandal, is made public and the offending school-based person(s) publicly humiliated. Many teachers and principals leave the district each year. For example, two years ago nineteen principals left the district. Only two of those were retiring. The others took positions in neighboring school districts. The board member comments were, "No problem, we will find someone else."

Red Fern ISD is highly centralized and only supports district-wide curriculum. The district tends to "buy" any new product or process that comes along. Currently there is a preference for "evidence-based programs." Each August, teachers are introduced to the newly adopted products. And, most years it is products in the plural, not just one new program or process.

Communication mainly comes from the "head shed" out. In the quarterly administrator meetings ("They tell us stuff that could just as easily have been e-mailed,"), there will usually be a one-time announcement of what new programs will be coming—but principals are given minimal information, or at best a short informational session.

Each summer, the Assistant Superintendent for HR, Roxanne Page, goes to the local media to express concern about the district not having hired enough teachers. "With all the new schools opening this fall, we are challenged to find enough qualified teachers." There never is acknowledgement of the teacher, and principal, retention problem. Most of the new hires come from other communities, and some come from out of state. Given the dynamics at the district level, school personnel keep their heads down and hope to not hear from the district

office. There is little communication across schools and little communication up to the district office. Instead, communication in general is "top down."

Red Fern ISD does have some positive indicators. For example, in general test scores are high, and most high school graduates go on to college. Also, in the last year there has been a growing community awakening that the dysfunctional school board membership needs to be fixed.

Red Fern ISD Staff Include:

- *District Office:*
  - Jerry White, Superintendent (in his second year)
  - Bill Robinson, Assistant Superintendent for Secondary Schools
  - Jay Filler, Assistant Superintendent for Elementary Schools
  - Roxanne Page, Assistant Superintendent for Human Resources
  - Bill Owens, Director of Testing
  - Diane Reitz, Literacy Coordinator
  - Gary Moore, Math Curriculum Coordinator
  - Harold Wilson, past Superintendent (2 ½ years)
- *Maple High School:*
  - John Jones, Principal (first year as a principal, first year in the district)
  - Dave Johnson, Math Teacher and Teacher Union Representative
  - Paul Borchardt, ELA/Literacy Teacher
- *Birch Middle School:*
  - Audrey Nelson, Principal (second year in the district)
  - Sara Johnson, Math Teacher
- *Oak Elementary School:*
  - Betty White, Principal (20-plus years in the district, 10 as principal)
  - Maria Rodriquez-Foster, Lead Math Teacher
  - Janie Robinson, Teacher Union Representative

The Major Change Initiative: New Math Program to Increase Math Test Scores

Both districts have identified mathematics as a priority. The scores on the state tests have not been that good, and the lower SES schools have been doing poorly for several years. In addition, the new tests will be emphasizing higher-order thinking and problem solving. As you will see, improving teaching and learning in mathematics turns out to be an "innovation bundle," not a single change. The bundle consists of three major innovations intended to improve test scoresg

Standards for Mathematics The National Council for the Teaching of Mathematics has been the leader of the movement to have national and state learning standards and to address instruction that can lead to increased student learning. Each state, in its own way, has adopted a form of these standards.

Constructivist Instruction A second key change has to do with how teachers teach math. Instead of instruction being teacher directed, it is now supposed to be teacher guided. Students

are to "construct" their understanding. In other words, instead of teachers "telling," now they are to pose problems and the students are to "figure out" the answers.

Formative Assessment In the past—and still with many schools and districts—measuring student learning is based on quizzes, test scores, and homework assignments. The main purpose of all of these measures is to assign grades. Students likely receive little feedback on assignments, other than grades. This is more of a summative assessment approach. In some places, there are initiatives to move to a formative assessment model. There is less emphasis on grades and more of a focus on what can be done to use assessment data to facilitate further student learning. Students receive a great deal of constructive feedback. In addition, students fully understand the standards and where their current understanding is in relation to the benchmarks. When a formative assessment approach is fully implemented, students at all grade levels (including as far down as kindergarten) are able to self-assess and describe what they need to learn next.

Another change is in the works: educator pay The state's legislature is considering mandating a new educator pay plan that will be based on increases in test scores. You will see that each district's superintendent treats this innovation in different ways.

Each of these four innovations represent major paradigm shifts for teachers, administrators, and students. Parents also have to come to understand these changes.

CHAPTER 1

WHAT KEY PATTERNS, AND LESSONS HAVE WE LEARNED ABOUT IMPLEMENTING CHANGE?

Change Principles

Change! The only person that likes change is a baby with a wet diaper.
—Veteran teacher at Maple High School

We know from past experience that it takes several years to institutionalize new practices.
—Michael Major, Principal, Mountain View High School

Change means you are adjusting your learning.
—Stephanie Struthers, Director of Professional Learning, Green Valley School District

After all this research on classrooms, the inescapable conclusion is that school-based leadership makes a big difference.
—Dr. Leslie Hanson, Assistant Superintendent, Green Valley School District

When everything comes together right, change is an energizing and very satisfying experience.
—Inez Hernandez, Principal, Lincoln Elementary School

Here we go again. You know how change is. It is like a pendulum, swinging back and forth.
—David Johnson, Math Teacher, Maple High School

WHY A BOOK ON "IMPLEMENTING CHANGE"?

If you are a principal, a school district superintendent, a state-level administrator, a college department chair or dean, or a teacher—regardless of your role, chances are you have had experiences in suggesting or introducing changes of some sort in your organization. How many times have you been successful in accomplishing those changes, most especially if the changes were not readily agreeable to some of your constituents?

Perhaps you are principal of a large school. How do you manage the training and development of teachers and other staff so that they effectively take on new and improved practices that contribute to the school's outcomes and satisfaction on the job? Perhaps you are responsible for research and evaluation for your school district or a large corporation, or installation of a new approach in the military or government. Each of these new activities requires change. In addition, each change must first be in place (implemented) before its ultimate effectiveness can be assessed.

For decades—no, centuries, think Machiavelli, *The Prince,* originally published in Italian in 1532, currently available translated, 2005)—leaders have been delivering suggestions, invitations, mandates, and legislation in hopes of changing behaviors, attitudes, knowledge, skill, and understanding. These leaders also have a need to know if their improvement strategies are working. Such actions of introducing, implementing, and assessing change have occurred erratically in the corporate sector, in schools, in medical practice, and in almost every other area of human endeavor. A large proportion of implementation efforts go unheeded or have resulted in superficial, modest, or poor installation. Too many end with the participants observing, "See, I told you so: This too would pass."

One of the districts we studied addressed this situation head on as they engaged in a major change. When administrators recognized the mixed feelings of the staff, they immediately planned for, announced, and delivered purposeful assistance and support for implementing the change. They also designed and put into place a monitoring system that provided bimonthly feedback on the status of implementation. These actions sent strong signals to the staff that the new program was here to stay and that the administration would back it over time.

In an era of abundant research findings and examples of tested and improved practices that can lead to better products and processes, there is a surprising and woeful lack of these new ideas, products, and processes being in full use in our homes, schools, and workplaces. Advertising and marketing activities extol the virtues of everything from the latest fad diet to how to teach phonics. Many of these products and processes are discarded after a brief period of experimentation and no immediate or visible success. What is the problem here?

For the past 40 plus years, the authors of this text have been leaders of an international team of researchers studying the change process in schools, colleges, businesses, and government agencies. We have been systematically charting what happens to people and organizations when they are involved in change. We have learned a lot about the challenges, the problems, and what it takes to be successful. Our research approach is different from that of others in a number of ways, including our primary focus on the people at the front lines who have to implement the expected change. Our secondary focus has been on how leaders can facilitate change.

In combination, we have more than 80 years of research and practice efforts intended to discover how to accomplish change, and to support and assist schools and other organizations in their efforts to improve. We have observed and shared the successes of those schools and businesses that been successful in implementing change. In many settings change efforts have been managed and guided in ways that have moved from abstract promise to successful reality. We have observed also, despite our most urgent and encouraging support and assistance, organizations that have had limited success or outright change failure. They tend to adopt new programs and processes year after year, quickly rejecting each as it appears to fail to deliver the promised results.

The original team for these research efforts came together in the late 1960s at the University of Texas at Austin. From 1970 to 1986, this group studied the change process in schools and universities as part of the agenda of the Research and Development Center for Teacher Education. Along the way, researchers from the United States, Belgium, The Netherlands, Australia, Canada, Taiwan, Hong Kong, and several other countries joined in verifying the concepts and extending the research agenda. Now in place is an international network of change-process researchers who have conducted studies related to the concepts and principles presented here.

Our keen observations, rigorous studies, and experiences with many types of organizations and changes have led us to articulate some basic principles about the process of change. We initiate the discussion of change and implementation in this book by a brief explication and review of these time-tested principles.

REFLECTION QUESTIONS

As you think about your experiences, what have you learned about change? What is one principle of change that you would identify?

LEARNING OUTCOMES

After reading this chapter, you should be able to:

1. Describe key principles of change that are givens.
2. Explain how change and learning are related.
3. Specify the role required of leaders in the process of change.
4. Be open to considering aspects of change from macro to micro.
5. Identify and describe aspects of change processes that limit success.

PRINCIPLES OF CHANGE

One important result of our long-term collaborative research agenda is that we now can draw some conclusions about what happens when people and organizations are engaged in change. A number of patterns have been observed repeatedly, and some have developed into major themes, or basic *principles,* and we do mean *principles.* As in the so-called hard sciences, enough is now known about some aspects of the change process that we can state a series of principles that are true for all cases.

The Change Principles presented in this chapter are the "givens" underlying all that will be presented in subsequent chapters. From our point of view, these principles are no longer debatable points, for they summarize predictable aspects of change.

Before introducing selected principles about change, we need to point out an important caveat: Each principle is not mutually exclusive, and at first reading some may seem inconsistent with others. Also, these principles do not cover all aspects of change. (Otherwise we would not need the other chapters in this book.) Instead, they address selected aspects of the change process in which the patterns are clear. Acknowledging that these principles are foundational to our way of thinking about change will save you time in trying to discover our implicit assumptions. In addition, understanding them should help you in predicting key aspects of change efforts with which you are engaged.

We need to emphasize that at all levels—individual, organizational, and system—change is highly complex, multivariate, and dynamic. If it weren't so complicated, it would not be nearly as much fun to study, facilitate, and experience. So, let's begin our journey of bringing order to change by introducing a set of principles about change that each of us has understood implicitly but probably not verbalized. Interestingly, we predict that you will be able to describe personal change experiences in which each of these principles was employed. We

also expect that you have witnessed change initiatives where one or more of these principles was ignored or violated. Certainly, your future change efforts can be more successful if all of these principles are incorporated.

Change Principle 1: Change Is Learning—It's as Simple and Complicated as That

One of the authors still vividly recalls a long-ago classroom teaching experience. The district mathematics curriculum coordinator introduced and expected that all teachers would implement and use a new inquiry-oriented math curriculum that provided students with a large degree of self-guided instruction. To support the teachers in this new approach to teaching math, teacher's guides for the curriculum were distributed, and teachers were directed to learn about how to teach the new program by sitting alone in front of their residential televisions with the teacher's guide in their hands and watch a "self-paced guide"—not a very powerful professional development strategy.

Subsequently, this teacher's mathematics guide became permanently affixed to her left arm. Following this "teacher-proof" set of teaching directions worked well when the students responded with understanding and the correct answers. However, when students didn't understand or respond correctly, the teacher did not know what to do, because she had little depth of understanding of the process for this kind of instruction. Fortunately for all in this classroom, one of the intellectually gifted sixth-grade students understood the situation and the curriculum and taught the teacher! This was how this teacher came to be an expert with the new approach.

Learning enabled the teacher to *change* her practices and to use the *improved* and more effective program with students. (As a side note, in this same vignette, many teachers did not have access to a student or other learning resource that enabled them to use the program effectively. After trials and frustration with the program, they reverted to their old practices—a common result in such scenarios.)

Learning is a critical component embedded in the change process. Research focused on change process and on professional development reveals parallel findings, both of which identify the imperative of learning in order to use improved programs, processes, and practices. In other words, change entails learning. Accomplishing change requires learning new skills, and perhaps refining old skills.

Change entails learning new knowledge too. Basic knowledge about how to use the new approach most certainly needs to be developed. There also can be the need for higher order learning. For example, over time teachers become so familiar with the new way that they are able to predict the typical mistakes that students may make when using the new way.

Spirals of Change. Figure 1.1 is one way to illustrate learning during change processes. Three change initiatives are represented. Each change process is represented as one loop that ends in a new level, or plateau. Over time there is a continuing spiral of changes. Each change initiative represents the necessity, as well as a new opportunity, to learn. The shaded areas represent learning. New knowledge and skills are acquired as each change process unfolds. There is major learning and growth as the change is being implemented. There also will be some continuing learning as each change plateaus and becomes the established way. Note that

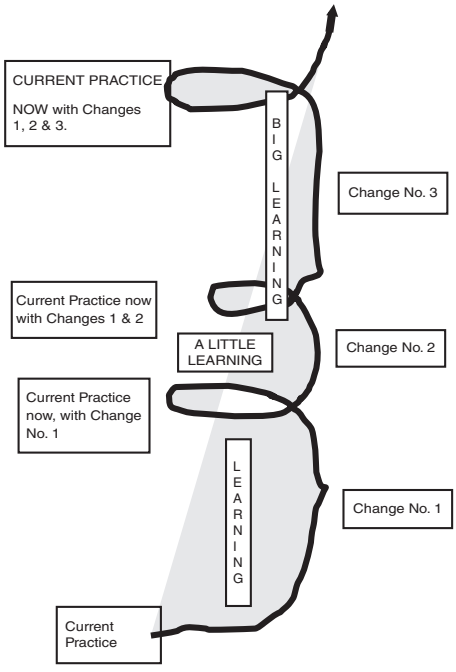


FIGURE 1.1 Each change entails new learning.

the size of the changes is different, but in each case new learning is required. Regardless of how successful each change ultimately is, there will have been new learning.

A related consideration that is symbolic of an on-the-ground reality is that in most settings, most of the time there is more than one change process unfolding at the same time. This means more opportunities for learning. There also is greater risk of confusion and less change success as people grapple with multiple changes at the same time.

Riding a Bicycle. As another way to illustrate the importance of learning, let's use an example that most of us experienced during our childhood—the experience of learning to ride a bike. To move from walking to bike riding entails *change. T*o become a skilled bicycle rider requires *learning* about the pedals, handlebars, balance, the rules of the road, and steering along neighborhood paths and roadways. With time, the basic knowledge and skills are in place. Today, many will move on to century rides, and some will race. With each "change" new knowledge and skills have to be learned.

This example is easy to understand and visualize. Most of us have experienced learning to ride a bicycle. The example also illustrates the importance of having a caring mother/father, or older brother/sister, to guide the learning, to provide feedback about how to sit astride the vehicle, and how to rotate the pedals so that the wheels turn safely and efficiently. The same types of "coaching" are important when adults are implementing change. Coaching can add measurably to the quality and significantly reduce the time required for the learning.

In the examples provided here, the changes and the related learning needs are fairly easy to understand and to accomplish. For real change efforts, especially in schools, it is important to identify what the implementers need to know and be able to do (i.e., what new learning is necessary). Before the new outcomes can be realized in the students, the instructional staff (and the students) must learn how to use the new way.

Change Principle 2: Change is a Process, not an Event

The very first assumption in our studies of change in the early 1970s was that "change is a process, not an event" (Hall, Wallace, & Dossett, 1973). In other words, change is not accomplished by establishing a policy, an executive's decision, having a two-day training workshop for teachers in August, or the delivery of the new curriculum/technology to the school office. Instead, change is a process through which people and organizations move as they gradually learn, come to understand, and become skilled and competent in the use of the new way(s).

Three Phases. Figure 1.2 is one way to illustrate that change is a process. Imagine a setting where there is a very large and deep chasm. On the left side are schools engaged in current practices. On the upper right side of the chasm are the increases in student outcomes that are desired (or demanded). Too often, there is an explicit expectation that the desired new, and higher, outcomes will be achieved automatically with their being announced and/or if they are to be tested.

Strategies that focus only on desired outcomes fail to acknowledge several realities associated with implementing change. First, if there are no changes in practice, there is little reason to expect a change in outcomes. As principals often observe, "If you always do what you have always done, you will continue to get what you always have gotten."

The second failure is to not recognize or accept that change is a process, not an event. In the scene shown in Figure 1.2, with an event mentality practitioners are being asked to make a *Giant Leap across the chasm.* Often the gap between current practices and the new way is

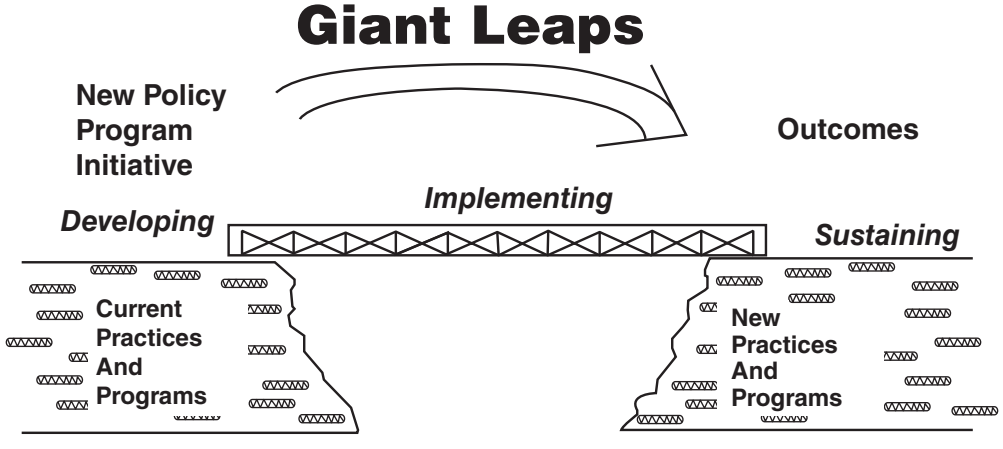


FIGURE 1.2 The Implementation Bridge with the Three Major Phases of the Change Process

huge. The implementers are directed to improve outcomes without any support for learning how to change their current practices and become skilled at using the new practices.

In our view, the change process consists of three major phases.

- **Developing:** Creating a new program or process, testing out early prototypes, and packaging the final product for dissemination are very important activities. The higher quality the final product, the easier will be the efforts to have others successfully adopt and implement the change.
- **Implementing:** Taking on the tasks of learning how to use the new way, and how to use it well, require time and support. The more grounded the support, including coaching, and having a multiyear view, the greater the likelihood of achieving implementation success.
- **Sustaining:** Getting across the Implementation Bridge takes time. However, spending time on the Bridge does not necessarily lead to continuing use. Establishing ongoing regular use of a change is less often achieved. To sustain use on into the future will likely require adjustments in system supports.

Clarifying Concepts:

In some ways "Implementing" and "Implementation Science" are overlapping terms. However, in using the broader view of change science, implementation is one of the three major phases of the *change process*. Explicitly, the term does not encompass all of the phases.

Different Phase Priorities at Different Times. The three phases of the change process have had different degrees of emphasis. For example, in the late 1960s and throughout the 1970s the US national approach to change was through developing new programs. The National Science Foundation invested huge sums in curriculum development. Leading scientists were contracted to assemble project teams that included master teachers and program evaluators. A stated expectation was that the new programs would be so well developed and perfected that teachers would use them as designed. They would be *teacher proof*. They turned out to be teacher proof in a different way: teacher's didn't use them well, or—in most cases—at all.

The US is now in a time when heavy emphasis is placed on implementing new programs and processes. In fact the Implementing Phase has become so important that a new field of study has been established: "Implementation Science" (see for example National Implementation Research Network. https://nirn.fpg.unc.edu/learn-implementation/implementation-defined). Within this approach the priority is placed on implementing "Evidenced-Based Practices (EBP)." These are programs and practices that have a research base documenting their effectiveness. The implicit assumption, once again, seems to be that EBPx will be "teacher proof."

The view that is missing so far, in the United States, is focusing on sustaining. As well developed and tested as EBPs may be, there is the need to see that they are implemented in new settings, and that use of the EBPs will continue. Note that the Sustaining Phase is addressed in other countries. For example, the elementary school literacy curriculum, STELLAR, in Singapore has been in place for more than a dozen years.

Change Processes Take Time. Our research and that of others documents that most changes in education take three to five years to be implemented at a high level (for example, see George, Hall, & Uchiyama, 2000; Hall & Loucks, 1977; Hall & Rutherford, 1976). Further, for each new organization unit (e.g., school, business, or state) that undertakes the change, the process will take them three to five years. In other words, when "going to scale" the clock begins at the beginning for each new adopting unit. There are very few shortcuts. However, the use of the constructs and tools presented in this book will significantly reduce the time needed to achieve a higher level of implementation. Failure to address key aspects of the change process can either add years to, or even prevent, the achievement of successful implementation.

Unfortunately, too many policy makers and leaders at all levels refuse to accept the principle that change is a process, not an event. For example, policy makers regularly insist that *their* changes must be implemented before their next election, which typically is within two years. Superintendents frequently promise that a major change will be fully implemented in one school year. This "event mentality" has serious consequences for change process participants. The press to make change quickly means that there is neither time to learn about and come to understand the new way, or to develop skills to use the new way efficiently and effectively.

A classic example of this expectation can be seen in the headline in the *Boston Globe* on 10 September 2017: "*Mayor Walsh's record on education shows incremental improvements."* It seems that one year before a high school was "deemed underperforming." Now, with a new headmaster and 60 new teachers "an aggressive plan for a state-mandated turnaround is in place." It sounds like the Developing Phase has been done, but Implementing the plan is still to come.

Although many other implications of Change Principle 2 will be developed in subsequent chapters, one that is important to note here has to do with planning for change. The strategic plan for change will look very different depending on whether it is assumed that change is a process or an event. If the assumption is that change is a process, then the plan for change will be strategic in nature. It will allow at least three to five years for full implementation and will budget the resources needed to support formal learning and on-site coaching for the duration. There will be policies that address the need for multiyear implementation support, and each year data will be collected about the change process. Such data will serve to inform the planning for support and facilitating implementation in subsequent years.

If the assumption is that change is an event, the strategic plan for implementation will have a short-term focus with typically little formal training session for teachers, such as only having one session before the school year begins. There will be limited planning for on-site coaching or follow-up. All too frequently there will be a first-year summative evaluation to see if the new approach is making a significant difference. As will be described in later chapters, one typical consequence of not finding any significant differences at the end of the first or second year of implementation is the mistaken conclusion that the new approach does not work, when in fact there was not enough time and support for implementation so that it might work.

Examples of an event mentality also can be seen in the formal steps taken in the typical school improvement process. Developing the plan utilizes eight to ten steps, while implementation requires just one. If school improvement were being thought of as a process, instead of an event, it would be called school "improving," and there would be several sets of actions across the Implementing Phase. The event mentality was well expressed by one assistant

superintendent who exclaimed in the spring of the first year of implementation, "What do you mean, that teachers need more training? We bought them the books. Can't they read?"

In summary, understanding that change is a process (Change Principle 2) and that an Implementation Bridge is necessary is becoming more widely understood. However, there seems to be less appreciation for the length of time it takes for most implementers to move across the bridge. As we said above, in schools and in higher education, it commonly takes three to five years to fully implement a major reform initiative. True transformational changes can take even longer.

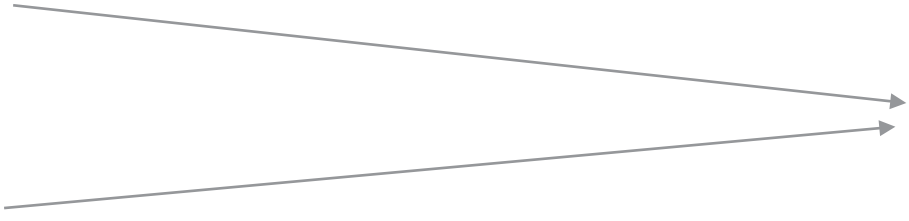
Change Principle 3: Implementing Change is a Whole System Effort

There is a natural tendency for people to see themselves and their immediate organization as being at the center of all that goes on. Teachers will naturally think of their classroom first, and then their school. Principals will think of their school first, and then the district. A state's governor will think of his/her state first. There is limited consideration of their being part of larger system.

One way of representing a holistic view is the Policy to Practice Continuum presented in Table 1.1. Rather than a classroom, a school, or the Federal Education Department being at the center, all are placed along a single continuum. Each is part of a larger system and all are interdependent. For the system of education to improve all parts along the continuum have to do their job, and respect and support other parts.

With the natural tendency of each part of the continuum to think primarily about themselves, there is less understanding and acceptance of what other parts are about and need to do. There are at least three views of how the whole system can experience change processes:

> Bottom Up View: Teachers see the complexity of their work and all that they have to do to plan, teach and take care of students each day. They infer that policy makers have it easy. "All they do is have committee meetings and pass laws that don't take into account what it is really like in my classroom."



Bottom Up View

TABLE 1.1 The Policy-to-Practice Continuum

FEDERAL	STATE	DISTRICT	SCHOOL	CLASSROOM
President	Governor	Superintendent	Principal	Teachers
Education Department	State Education Department	District Office Staff	All Staff	Students
Congress	Legislature	Board of Education	Site Council	Parents