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# *Understanding Change:* Diagnostic and Planning Tools

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## Ways to Use the Models

The fields of early childhood and early intervention continue to experience change at dizzying rates. Some changes may appear to “be dictated to us,” or “out of our control,” fueled by shifts in demographics, funding, legislation, and policy. Other changes may be precipitated by emerging research and technology and our commitment to adopt evidence-based practices. Whatever the reason, change can affect stakeholders dramatically. Families, early care and education providers, special educators, therapists, and administrators alike are often asked to make significant changes in their perspectives and practices.

Leaders, administrators, supervisors, consultants, trainers, and technical assistance specialists increasingly find themselves in the role of facilitating change with individuals, teams, programs, and communities. Facilitating change in complex systems is a daunting challenge as there are innumerable complexities to consider. It is often useful to use a theoretical or research based model to guide one in thinking through the complex task of promoting change.

This handout describes five models that have an established track record for assisting “change-agents” to understand the effects of change on individuals and organizations and determine strategies for facilitating planned change. The models might be useful to anyone who is leading a change effort. They can be used as analytical or diagnostic tools to help understand local conditions and to plan what can be done about them.

- Two of the of the models in this handout, *Conditions of Change* and *Implementation Issues*, are useful in helping pinpoint the necessary conditions that may be found wanting, indicating the need for further exploration of that characteristic of the system.
- Two other models, *CBAM* and the *Innovation-Decision Process*, help us understand the concerns of individuals who are being encouraged to change might have at different times during the change process in order to know what kinds of information people will need and who might be the best person to provide that information.
- A fifth model, *The Attributes of Innovations*, helps us understand the most important characteristics of an innovation that influence whether members of a social system will adopt it and how an innovation’s perceived characteristics might be altered to place an innovation in a favorable position in the minds of adopters.

Naturally no one model will fit every situation. The models need to be selected and used in the context of local conditions. But selected well, the models might be useful in a variety of ways.

- **At the inception** of a change effort, the models might be used to help assess the current situation and understand strengths, challenges, and barriers.
- **During planning** the models might be used as rough roadmaps to the essential conditions that need to be present in order for change to succeed or to plan communication strategies.
- **During monitoring** the models might be used to diagnose why the change process may not be proceeding as quickly as desired or to plan how to deal with resistance.
- **After adoption**, some models might be used to understand what resources need to be in place to support implementation.

# Conditions of Change

**Background:** Donald P. Ely, a professor of instructional design and development at Syracuse University and the director of the ERIC Clearinghouse on Information Resources, describes eight conditions that facilitate the adoption, implementation, and institutionalization of innovation/change. After a careful study of the literature that discusses the conditions that seem to facilitate change and with experience as a consultant/change agent, Ely proposed a series of conditions for technological change that were first directed toward libraries (Ely, 1976). These conditions served as a baseline over the years as more supporting data were gathered from the general literature on educational change on the research and evaluation of technological-change processes in education. Although Ely's research was first directed at changes in libraries and educational technology innovation, his work has valuable application to a wider variety of change scenarios. The material on the following pages was extracted and adapted from the references found at the end of this section.

## References

- Ely, D. P. (1976). Creating the conditions for change. In S. Faibisoff & G. Bonn (Eds.), *Changing Times: Changing Libraries* (pp. 150-162). Champaign, IL: University of Illinois Graduate School of Library Science.
- Ely, D. P. (1990). *The diffusion and implementation of educational technology in developing nations: Cross-cultural comparisons of Indonesia, Chile and Peru*. *Instructional Developments*, 1(1), 9-12.
- Ely, D. P. (1990). Portability: cross-cultural educational perspectives. *Journal of Research on Computing in Education*, 23(2), 272-283.
- Ely, D.P. (1990). Conditions that facilitate the implementation of educational technology innovations. *Journal of Research on Computing in Education*, 23 (2), 298-305

## Conditions of Change Planning Sheet (Ely)

Conditions that facilitate the implementation of innovations	To what extent do these conditions currently exist?
<p><b>1. Dissatisfaction with the Status Quo</b> One of the first steps to initiate change is that dissatisfaction exists with things as they are.</p>	
<p><b>2. Knowledge and Skills Exist</b> The people who will ultimately implement any innovation must possess sufficient knowledge and skills (competence) to do the job.</p>	
<p><b>3. Resources are Available</b> The material things that are needed to make the innovation work should be easily accessible.</p>	
<p><b>4. Time is Available</b> Implementers must have (paid) time to learn, adapt, integrate, reflect, pilot, practice, and evaluate new approaches.</p>	
<p><b>5. Rewards or Incentives Exist for Participants</b> Why should anyone change? If current practice is going reasonably well, why risk it? Incentives vary for individuals, but intrinsic or extrinsic, can play an important role.</p>	
<p><b>6. Participation is Expected and Encouraged</b> Unless the individuals who are expected to implement the change have a part in deciding what to do, it is unlikely that the innovation will be implemented with fidelity and enthusiasm. Participation occurs during problem identification, consideration of alternative solutions, and decision making.</p>	
<p><b>7. Commitment by Those who are Involved</b> Commitment communicates support, and any individual who is about to try a new material or procedure wants to know that there is firm and visible evidence that there is endorsement and continuing support for implementation.</p>	
<p><b>8. Leadership is Evident</b> Both program/agency leadership and project managers who are more closely involved in day-to-day activities need to: provide encouragement to consider new ideas; insure that training is offered; that necessary materials are accessible; and be available for when discouragement or failure occur.</p>	

# Implementation Concerns

The table below lists some of the most common obstacles that impede the implementation of change.

**Reference:**

Van Gundy, A. (1988). *Techniques of structured problem solving (second edition)*. New York: Van Nostrand Reinhold.

Implementation Concerns	To what extent do these concerns effect your implementation?
<b>Resources:</b> Is there adequate time, personnel, equipment, money, information for implementing this idea?	
<b>Motivation:</b> Do others possess the motivation and commitment needed?	
<b>Resistance:</b> Is the idea likely to encounter resistance?	
<b>Procedural obstacles:</b> Do procedural obstacles need to be overcome?	
<b>Structural obstacles:</b> Do structural obstacles need to be overcome? e.g. communication channels that might block implementation.	
<b>Policy obstacles:</b> Are there organizational/management policies that need to be overcome?	
<b>Amount of risk:</b> How much risk is likely to be tolerated?	
<b>Power struggles:</b> Are there any power struggles within the organization (even if unrelated to the idea) that might block implementation?	
<b>General organizational climate:</b> Is the general climate one of cooperation or distrust?	

# Concerns-Based Adoption Model (CBAM)

**Background:** During the "post-Sputnik" era the U.S. federal government and a number of other organizations invested heavily in development of "teacher-proof" curriculum packages and other programs designed to improve the education of American students, especially in math and science. Like many other innovations before and since, these curricula did not enjoy wide acceptance and, in the end, were not institutionalized as common practices.

The U.S. federal government conducted research following this period to determine why the implementation of these programs never fully occurred. The results of this research were the seminal work that led to creation of a knowledge-base that has become known as effective staff development practice. Our vocabulary today includes many concepts, like "building ownership" and "teacher buy-in", which came from this vital research.

One of the most important and widest-used of all this work was the "Concerns-Based Adoption Model", especially the "Stages of Concern" component, developed at the Center for R & D in Teaching at the University of Texas at Austin. This model was created to explain the lack of teacher buy-in and to propose ways of using this model to monitor and increase implementation of educational innovations. It has become a vital element of staff development planning and its effectiveness has been proven in the experience of this author and countless other staff developers nation-wide. Gene Hall, Shirley Hord, Susan Loucks-Horsley, and Leslie Huling, were all members of the original research and development team for the CBAM.

## References:

- Illinois Staff Development Council, <http://www.isdc.org/CBAM.html>
- Jill Lane, Instructional Designer, <http://www.personal.psu.edu/staff/j/l/jll191/knowledgebase/innovation/cbam.htm>
- Hall, G. (1979). The concerns-based approach to facilitating change. *Educational Horizons*, 57(4), 202-208.
- Hall, G.E. & Hard, S.M. (1984). *The Teacher's Point of View: Stages of Concern in Changes in Schools: Facilitating the Process*. New York: State University of New York Press.
- Hord, S. et.al. (1987). *Taking Charge of Change*. Association for Supervision and Curriculum Development, Alexandria, Virginia.

## Stages of Concern Planning Sheet (Hall et al)

Stages of Concern	Which stakeholders are at which stages of concern? What kinds of information do they need?
<p><b>Awareness Concerns</b> Has no awareness or concern.</p>	
<p><b>Information Concerns</b> Wants to know more about the innovation but does not want to get involved yet.</p>	
<p><b>Personal Concerns</b> Uncertain about the demands of the innovation, does not know if they have the skills necessary to do the innovation, and doesn't understand their role in the innovation process.</p>	
<p><b>Management Concerns</b> Focused on the processes and tasks of using the innovation and the best use of information and resources.</p>	
<p><b>Consequence Concerns</b> Wants to know the impact, the relevance.</p>	
<p><b>Collaboration Concerns</b> Explores coordinating and cooperating with others regarding the use of the innovation.</p>	
<p><b>Refocusing Concerns</b> Explores the universal benefits of the innovation, including the possibility of changing or replacing the innovation with a more powerful one.</p>	

# Diffusion of Innovations

**Background:** *Diffusion* is the process by which an innovation is communicated through certain channels over time among the members of a social system. Rogers' enormously useful book critically examines and synthesizes the lessons of more than 3000 diffusion publications, including more than 2000 research reports from diverse fields including sociology, communication, education, marketing, public health, medicine, anthropology, geography, and others. The following section presents selected findings *taken directly* from sections of Rogers' book and offers a format for you to apply the findings to your own situation. One way to use the material is identify and reflect on an innovation/diffusion program that you are involved in. By reflecting on the suggested questions, you can "audit" your current change-agent strategies and develop new ones according to Rogers' findings.

**Reference:**

Everett Rogers (1996), *Diffusion of Innovations* (4th ed.), New York: Simon & Schuster Trade, ISBN: 0029266718, 519 pp.

## The Innovation-Decision Process (Rogers)

The *innovation-decision process* is an information-seeking and information-processing activity in which an individual is motivated to reduce uncertainty about the advantages and disadvantages of the innovation. Typical questions are: What is it?, How does it work?, Why does it work?, What will the innovations advantages and disadvantages be in my situation? Individuals seek different kinds of information at different stages. For example, at the knowledge stage an individual mainly wants to know what it is, and how and why it works. At the persuasion and decision stages, an individual wants to know the innovations' advantages and disadvantages in his or her own situation. At the decision stage, individuals need how-to knowledge.

Stages of The Innovation-Decision Process	What kind of information should you offer individuals at each of these innovation-decision stages?
<p><b>1. Knowledge</b> The individual is exposed to the innovation's existence and gains some understanding of how it functions.</p>	
<p><b>2. Persuasion</b> The individual forms a favorable or unfavorable attitude.</p>	
<p><b>3. Decision</b> The individual engages in activities that lead to a choice to adopt or reject.</p>	
<p><b>4. Implementation</b> The individual puts the innovation into use.</p>	
<p><b>5. Confirmation</b> The individual seeks reinforcement for an innovation-decision already made, but may reverse the decision if exposed to conflicting messages.</p>	

## The Attributes of Innovations (Rogers)

*Rate of adoption* is the relative speed with which an innovation is adopted by members of a social system. Rate of adoption is usually measured by the length of time required for a certain percentage of the members of a system to adopt an innovation. Research indicates that the following are the most important characteristics of innovations in explaining the rate of adoption. It is the receivers' perceptions of the attributes of innovations, not the attributes as classified by experts or change-agents that affect their rate of adoption. *Positioning* views an innovation's perceived characteristics as changeable. Positioning can help place an innovation in an ideal niche in relation to existing ideas in the same field.

The Attributes of Innovations	How might potential adopters perceive these attributes? How might you alter these attributes to improve the perception of potential adopters toward your innovation?
<p>1. <b>Relative Advantage</b> The degree to which an innovation is perceived as better than the idea it supersedes; the higher the relative advantage, the higher the rate of adoption.</p>	
<p>2. <b>Compatibility</b> The degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters; the higher the compatibility, the higher the rate of adoption.</p>	
<p>3. <b>Complexity</b> The degree to which an innovation is perceived as difficult to understand and use; the higher the complexity, the lower the rate of adoption.</p>	
<p>4. <b>Trialability</b> The degree to which an innovation may be experimented with on a limited basis, the higher the trialability, the higher the rate of adoption.</p>	
<p>5. <b>Observability</b> The degree to which the results of an innovation are visible to others. The higher the observability, the higher the rate of adoption.</p>	

## Factors in Change-Agent Success (Rogers)

A *change-agent* is an individual who influences clients' innovation decisions in a direction deemed desirable by a change-agency. There are several factors that explain why change-agents are relatively more successful in introducing innovations. These have obvious implications for strategy.

Change-Agent Success is positively related to...	Describe your current strategy, or strategies that you could put in place.
<ul style="list-style-type: none"> <li>The extent of change-agent effort in contacting clients</li> </ul>	
<ul style="list-style-type: none"> <li>A client-orientation, rather than a change agency-orientation (more feedback-minded, close rapport with clients, base activities on clients' needs, etc.)</li> </ul>	
<ul style="list-style-type: none"> <li>The degree to which the diffusion program is compatible with client's needs</li> </ul>	
<ul style="list-style-type: none"> <li>Empathy with clients (putting him or herself into the role of another person)</li> </ul>	
<ul style="list-style-type: none"> <li>Homophily with clients (the degree to which pairs of individuals who interact are similar)</li> </ul>	
<ul style="list-style-type: none"> <li>Credibility in the clients' eyes</li> </ul>	
<ul style="list-style-type: none"> <li>The extent that he or she works through opinion leaders</li> </ul>	
<ul style="list-style-type: none"> <li>Increasing clients' ability to evaluate innovations</li> </ul>	