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ABSTRACT

The individuals who use, or neglect to use, an innovation such as mainstreaming are the key to success or failure in change efforts. The concepts of individual stages of concern about an innovation and levels of use of the innovations are discussed. It is suggested that these dimensions can be used as diagnostic tools for facilitating change and as evaluation tools for determining the degree of success. Processes, procedures, and concepts that can be used to analyze the change processes and to plan and design changes are described. Sample data from a Dean's Grant Project are used to illustrate these processes. Implementation strategies and some guiding principles for change agents are presented. (JD)

Facilitating Institutional Change Using the Individual as the Frame of Reference

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ABSTRACT. *The individual users and nonusers of an innovation such as mainstreaming are the key to success or failure in change efforts. In this chapter, the concepts of individual Stages of Concern about an Innovation and Levels of Use of the Innovation are described. These dimensions can be used as diagnostic tools for facilitating change and evaluation tools for determining the degree of success. Sample data from a Dean's Grant Project are used to illustrate the concepts and processes described. The chapter includes descriptions of a set of implementation strategies and some guiding principles for change facilitators.*

Bringing about change in schools and colleges is a popular topic of conversation among policy makers, administrators, teachers, and professors, all of whom have their own opinions about the ease and difficulties, challenges and frustrations of change efforts they have experienced. The near-infamous studies of Paul Mort suggesting that it takes almost 50 years for educational innovations to reach nearly all schools are often cited, and frustrations over the slowness of change efforts and the failure of the latest great innovation tried are brought forth as testimony for the futility of attempting systematic change.

Meanwhile, professional educators, administrators, legislative bodies, and our consumers — the students and public — are insisting that more and faster changes occur in our educational institutions. More educational innovations and innovative processes are being developed and promoted. New forms of accountability, closer scrutiny of present-day practice, and general disappointment with the promise of education are leading to the inevitable requests and increasing demands for more change.

The mainstreaming movement is an excellent example of the present dilemma of society. Legislative bodies, professional educators, researchers, and educational administrators all became aware of a set of existing inadequacies and inconsistencies in our educational system,

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therefore, a change was required. In the case of mainstreaming, the required changes are on a large scale, affecting not only schools but teacher-education institutions across the country as well. Mainstreaming is one requirement affecting educational practice and necessitating some degree of change in nearly every educational institution.

With mainstreaming, as with other changes, there is a great deal of uncertainty among administrators, faculties, and policy makers about exactly how to accomplish the desired change. The tendency always is to focus too narrowly on the change itself and not to give sufficient attention to the processes and procedures for institutionalizing the proposed change. It seems that viewing change as a process subject to rational decision making, anticipation, and planning occurs rarely. Rather, mainstreaming, or whatever the innovation, is simply assumed to be incorporated if one adds its name to the list of things that one is already doing.

This chapter describes some processes, procedures, and concepts that can be used to analyze the change process and to plan and design change efforts. These concepts are the result of extensive research at the Research and Development Center for Teacher Education at the University of Texas at Austin (supported by the National Institute for Education). The concepts result from extensive experience with the implementation of innovations and analysis of the change literature. The underlying premise
48 behind this research, and this chapter, is that change can be planned and facilitated in personalized ways that will increase the effectiveness of the innovation and reduce the trauma that is experienced by the individuals involved. Unexpected events and problems will occur, but the skilled change manager can anticipate steps and productively facilitate the change process.

The concepts presented here cannot be implemented and used unless change facilitators are thoughtful people concerned about individuals. Whether the change is being facilitated by a dean, department chairperson, principal, superintendent, or an outside change agent, the responsibility for the implementation effort must be in the hands of a thinking being who will take time to analyze the change effort underway from the point of view of not only the innovation that is being implemented but the dynamics of the change situation as it affects each individual involved, as well.

The assumptions underlying the research at the Research and Development Center for Teacher Education are described first. Then a set of concepts are presented and interrelated by describing the Concerns-Based Adoption Model (CBAM). Two dimensions of the model are emphasized: (a) Stages of Concern About the Innovation and (b) Levels of Use of the Innovation. They are the key diagnostic tools for use by change facilitators. A series of implementation strategies are described next. These strategies have been identified through analysis of past efforts to implement innovations similar to mainstreaming (e.g., team

teaching, Individually Guided Education) in teacher-education institutions. Several of these strategies are also frequently used in school settings. A brief case study is then presented to illustrate how the concepts that have been presented can be used to describe, plan, and monitor a change effort. The chapter concludes with a brief discussion of implications for school personnel who will be implementing mainstreaming or similar innovations.

Assumptions About Change in Educational Institutions

Underlying the research on the Concerns-Based Adoption Model (CBAM) are a set of assumptions (Hall, Wallace, & Dossett, 1973). Although several of these assumptions are common to many other change models, others provide a unique emphasis to CBAM. In presenting these assumptions and in the remainder of this chapter, there are frequent references to the "innovation." In thinking about these concepts and strategies, the reader should keep in mind that the word "innovation" is used generically to include both new processes and products. These innovations may be relatively small, such as regular change in textbooks, or very large and complex, such as the implementation of competency-based teacher education, Individually Guided Education, or mainstreaming. Our research indicates that the concepts and procedures described apply to many different types of changes, thus, the general term "innovation" is used rather than "mainstreaming" or the title of some other specific change.

There follow the key assumptions underlying CBAM:

1. *Change is a process, not an event.* The implementation of innnovations is not accomplished by the occurrence of a single event; rather, from the faculty's point of view, change is a process that may cover as long as several years. Time and experience are required to develop new skills and organize resources to use an innovation effectively. All too often, decision makers treat change as if it were an event made up of singular decisions, announcements, and proclamations that a change has been accomplished. However, from the innovation user's point of view, change is much more complex.

2. *Change is made by individuals first and then by institutions.* An institution cannot be described as having changed until the individuals within it have changed what they are doing in relation to the innovation. It is likely that key administrators will have to change first by openly supporting an innovation. Ultimately, however, the various individuals who are required to use the innovation will have to do so before it can be said that the institution as a whole has changed. Further, in managing and facilitating a change effort, it is critical to focus on the individuals at their various points and phases within the process of implementation

since they will be at different points and, therefore, will need different types of assistance.

3. *Change is a highly personal experience.* All too often, the personal side of change is completely neglected or omitted from consideration. For every person involved in a change, including change facilitators, there are personal perceptions, frustrations, and satisfactions. Failure to acknowledge and attend to the personal side of change is probably one of the key reasons that so many change attempts fail.

4. *Change entails developmental growth in feelings and skills in relation to the innovation.* A part of CBAM proposes identifiable developmental stages and levels that individuals are likely to move through in relation to a change. These stages and levels are described further in the next section.

Implications of the preceding assumptions are many. The people, rather than the innovation, probably should be the first point of focus for interventions. All too often, it appears that change facilitators become overly preoccupied with the technology and trappings of the innovation and neglect to attend to the people who will use it. Further, the identification of a series of stages and levels that individuals move through when implementing an innovation suggests that the change facilitator will likely need to use different interventions for different people at different times. This implication leads to another assumption.

5. *The change facilitator must function in highly adaptive, systemic, and personalized ways if change is to be facilitated most efficiently and effectively for the individuals and for the institution as a whole.* Change facilitators must constantly assess the state of the scene, anticipate the potential consequences of actions across the system, and adapt their actions accordingly. How all these assumptions and potential implications are interrelated in the model is described in the next section.

The Concerns-Based Adoption Model (CBAM)

CBAM was developed following approximately 10 years of extensive field experience and study of change attempts. One source of ideas was the research of Frances Fuller, who had studied the "concerns" of preservice and inservice teachers. Other parts of the research were drawn from the literature on change (e.g., Havelock, 1971; Miles, 1964; Rogers & Shoemaker, 1971). Still other parts of the model are based upon the clinical experiences of the authors who had worked extensively as both school-based and higher education-based internal and external change agents.

In sum, CBAM views the change process within formal organizations as entailing the individual's moving through seven identifiable *Stages of Concern About the Innovation* and eight *Levels of Use of the Innovation*. The change facilitator's function is (a) to diagnose at what stage of concern

and level of use the individual is and (b) to adapt his/her interventions accordingly. This personalized activity takes place within the context of the whole organization and is limited to whatever resources the change facilitator has available.

Recent research at the Texas R&D Center has focused on initial verification of the Stages of Concern and Levels of Use. A 35-item questionnaire and an open-ended concerns statement have been developed to measure Stages of Concern. A focused interview procedure has been developed to measure Level of Use. These measures have been used to review research studies, and change facilitators have used them in a variety of clinical settings. Findings from these various activities are described briefly in the following sections.

STAGES OF CONCERN ABOUT THE INNOVATION

Fuller (1969), in her pioneering research on the concerns of student teachers, proposed that those concerns moved through four levels, from *unrelated* to *self* to *task* and, ultimately, to *impact* concerns.

Unrelated concerns are those that do not deal with the teaching task or teaching activities at all. These concerns involve other parts of the teacher's life space, including his/her social life and other college classes.

Self-concerns focus upon the effect of teaching upon the teachers themselves. These concerns are not student oriented; they deal with how the teacher personally feels about and perceives his/her developing role as a teacher.

Task concerns, as the name implies, focus on the management and logistics of teaching. They include, typically, concern about completing all the lesson plans and other time-related and managerial aspects of the teaching act.

Ultimately, Fuller found that student teachers, and especially experienced inservice teachers, begin to express many types of *impact concerns*. These concerns focus directly on the teaching-learning act: what children are learning and what the teachers themselves can do to improve their professional competence.

Recent research (Hall, 1976; Hall & Rutherford, 1976) has demonstrated that the concept of concerns proposed by Fuller also applies to individuals who are involved in change. Seven Stages of Concern About an Innovation have been identified; they are described in Table 1.

As Fuller found with student teachers, innovation users tend to progress from lower Stages of Concern to higher Stages of Concern during the implementation process, assuming that the innovation is a worthy one and the implementation effort has been effectively facilitated.

Research has further shown, however, that people do not experience one Stage of Concern at a time; rather an individual has a concerns profile. There are concerns at all stages, but some Stages of Concern are

Table 1

Stages of Concern About the Innovation*

6 **REFOCUSING:** The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing norm of the innovation.

5 **COLLABORATION:** The focus is on coordination and cooperation with others regarding use of the innovation.

4 **CONSEQUENCE:** Attention focuses on impact of the innovation on students in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.

3 **MANAGEMENT:** Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

2 **PERSONAL:** Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision making and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

1 **INFORMATIONAL:** A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.

0 **AWARENESS:** Little concern about or involvement with the innovation is indicated.

more intense than others. For example, an individual who is first hearing and learning about an innovation generally will have most intense concerns at Stages 0, 1, and 2; concerns will be most intense about "what is it" (Stage 1, Informational) and "what does it mean for me" (Stage 2, Personal). This concerns profile is presented as the solid line in Figure 1.

The dashed line in Figure 1 represents the concerns profile that is typically found with early users of an innovation. Their most intense concerns focus on management of the innovation (Stage 3). Their Stage 1 and 2 concerns decrease in intensity while their impact concerns (Stages 4, 5, and 6) gradually increase in intensity. Early users of an innovation typically are most concerned about the time, logistics, and task requirements related to use of the innovation.

*Original concept from G. E. Hall, R. C. Wallace, Jr., & W. A. Dossett. A developmental conceptualization of the adoption process within educational institutions. Austin: Research and Development Center for Teacher Education The University of Texas, 1973.

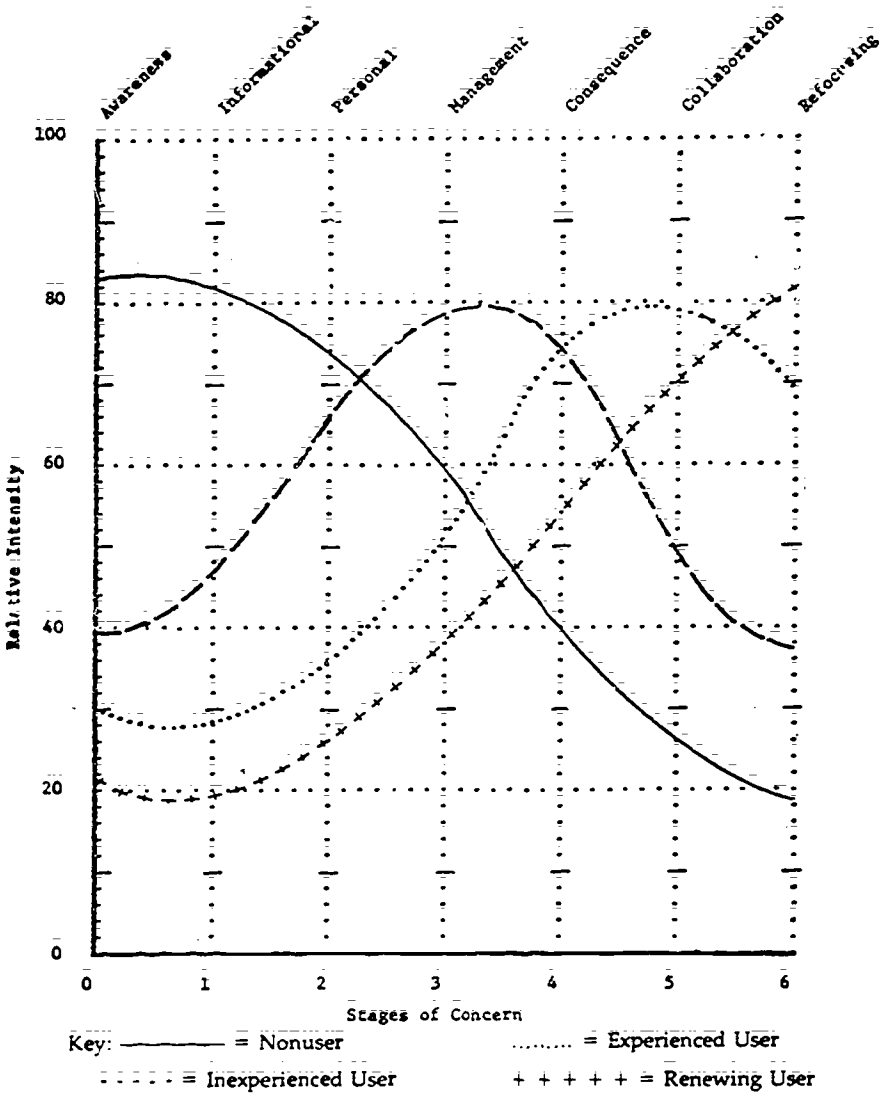


Fig. 1. Hypothesized development of Stages of Concern.

It is not until the individual becomes more experienced and personally comfortable with and sophisticated in the use of the innovation that he/she begins to have various types of impact concerns. The last two profiles in Figure 1 represent degrees of more experienced or impact-concerned individuals. Experienced and most effective innovation users tend to have intense Stage 4, 5, and 6 concerns with Stage 0, 1, 2, and 3 concerns of less intensity.

Strategies for change

Depending on the individual, the innovation, and the institution, any one of Stages 4, 5, and 6 will be most intense at a given time. At Stage 4, individuals are most concerned about how they, by themselves, can have more impact upon the innovation, while at Stage 5, the concern shifts to collaborating with other innovation users or colleagues in order to increase impact. Stage 6 concerns focus on changes that could be made in the innovation or, perhaps, replacement of the innovation with something that would work better. Incidentally, our research suggests that individuals are not likely to have high Stage 5 and 6 profiles unless there is institutional support for those concerns.

To date, research on the concept of Stages of Concern has demonstrated that they can be reliably and validly measured (Hall, George, & Rutherford, 1977) and that with different innovations, the rates of development and movement are different through the Stages of Concern. The concept, therefore, is proposed as one key tool for diagnosing, monitoring, and facilitating a change effort.

LEVELS OF USE OF THE INNOVATION

Levels of Use (LoU) is the second key dimension of CBAM for viewing individuals as they are involved in implementation. Stages of Concern focus upon the feelings and perceptions of the individual while Levels of Use describe the individual's actual performance and behaviors in relation to the innovation. There have been identified eight Levels of Use that are demonstrated by individuals as they implement an innovation. These Levels of Use are presented in Table 2.

The Levels of Use dimension ranges from nonuse, where the individual is not doing anything in relation to the innovation, to mechanical use, where the individual makes adaptations and adjusts the use of the innovation to make it more efficient and usable for him/her, to various types of "refinement," where adaptations are made in the innovation for the purpose of increasing student outcomes. The Levels of Use have been operationally defined in what is called *The Levels of Use Chart* (see Hall, Loucks, Rutherford, & Newlove, 1975).

Several striking implications that are important for change facilitators come out of Levels of Use research. One implication is that it is possible to find individuals within so-called "innovative" schools and colleges, where an innovation is supposed to be fully implemented, who are at Level of Use 0, *Nonuse*. We also have found in several research studies that in so-called control groups, who, supposedly, are not using the innovation or treatment, individuals can be found who, in fact, are using the innovation (Hall & Loucks, 1977).

Another implication of Levels of Use for change facilitators is illustrated in Table 3. More individuals are at Level III (Mechanical) use in the first year of use than in subsequent years, and the number of indi-

Table 2

Levels of Use of The Innovation*

0 NONUSE: State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.

I ORIENTATION: State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.

II PREPARATION: State in which the user is preparing for first use of the innovation.

III MECHANICAL USE: State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet use needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.

IVA ROUTINE: State in which use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.

IVB REFINEMENT: State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.

V INTEGRATION: State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.

VI RENEWAL: State in which the user reevaluates the quality of use of the innovation, seeks major modification of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

viduals at Level IVA (Routine) and above increases after the first year. Thus, it would seem important for managers of the change process to anticipate that in implementing mainstreaming or other innovations, many individuals are likely to be at a Mechanical Level of Use during the first cycle of implementation.

A further finding from the research was the establishment of the IVA Routine Level. Analyses of the first several studies that were based on stratified samples very quickly demonstrated that a surprisingly large percentage of the users of innovations were using it in a "routine" way. They were not making adaptations or changes in what they were doing. It now appears that roughly 40-50 percent of the users of an innovation in a stratified sample will be at this level.

*Excerpted from The LoU chart: Operational definitions of Levels of Use of the Innovation. Austin: Research and Development Center for Teacher Education, The University of Texas, 1975.

Table 3

Distribution of Users Within Each Level of Use by Years of Experience for Two Innovations, Fall 1974

Years of Experience with Teaming

Levels of Use	1st Year	2nd Year	3rd Year	4th Year or More
III	41%	16%	11%	10%
IVA	51%	80%	73%	72%
IVB	6%	0%	9%	10%
V	2%	4%	7%	3%
VI	0%	0%	0%	5%
	N=87	*N*=25	*N*=70	*N*=101

Years of Experience With Modules

Levels of Use	1st Year	2nd Year	3rd Year	4th Year or More
III	22%	10%	11%	15%
IVA	40%	54%	37%	37%
IVB	22%	21%	33%	15%
V	12%	10%	11%	30%
VI	4%	5%	7%	4%
	N=50	*N*=39	*N*=27	*N*=27

Excerpted from G. E. Hall & S. F. Loucks, A developmental model for determining whether the treatment is actually implemented. *American Educational Research Journal*, Summer 1977, 263-276.

THE CONCERNS-BASED CHANGE FACILITATOR IN THE CBAM CONTEXT

In viewing Stages of Concern and Levels of Use within the totality of CBAM, the change facilitator, whether the dean, another administrator, or a designated change agent or implementation agent, has the role of determining *which* resources to provide and *when* to facilitate the implementation effort. One way of representing the role of this facilitator diagrammatically from the concerns-based perspective is presented in Figure 2.

The concerns-based change facilitator works in a diagnostic and prescriptive mode. He/she first diagnoses where the individuals are by assessing their Stages of Concern and Levels of Use. Using these diagnostic data, the change facilitator then identifies various resources to deliver. These resources may be material from his/her professional library, the presentation of a formal workshop, or dollars. The delivery of the resources is an intervention that is designed to be relevant to the concerns of the recipients and to facilitate their implementation efforts.

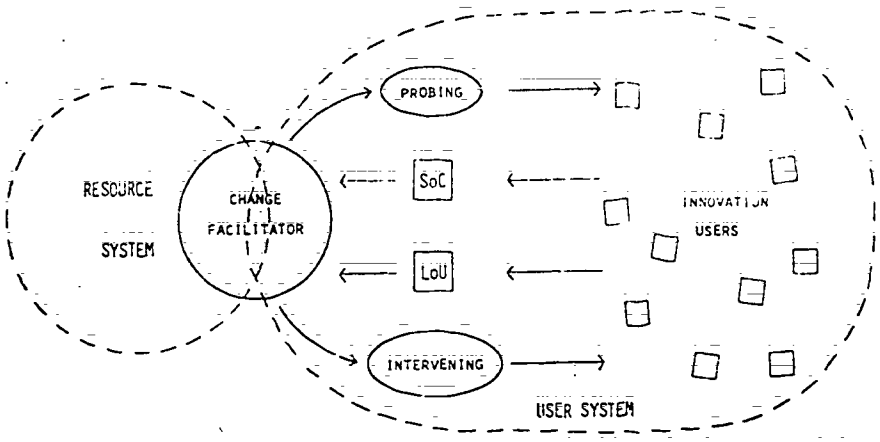


Fig. 2. The Concerns-Based Adoption Model as applied by a facilitator with limited resources.

The concerns-based approach is a diagnostic-prescriptive one that takes place largely within the context of the school or college where the change is occurring. Therefore, it is important not only that the change facilitator be a good diagnostician but that he/she be a highly *adaptive* person as well. Just as an organism adapts to its environment by changing its color or adjusting its hormone or enzyme levels in response to stimuli, so the change facilitator must constantly adapt his/her behavior according to the diagnostic data and deliver resources in accordance with the latest available information, while constantly anticipating how the participants will respond to the assistance. 57

In addition, the change facilitator must be *systemic* in his/her view of the change efforts. Mainstreaming is likely not to be the only innovation that is being implemented within the larger institutional context. Interventions that are made relative to mainstreaming may have counterproductive effects with regard to some other implementation efforts. Therefore, the change facilitator must anticipate that interventions made with Professor X with regard to mainstreaming may have completely unexpected effects on Department Chairperson Y over on another part of the campus. The change facilitator somehow must juggle all these dimensions and anticipate the consequences of each action on the target individual(s) as well as on other parts of the organization.

In total, then, as presented in Figure 2, the function of the change facilitator, assuming again an appropriate innovation, is one of working in an adaptive, systemic way to provide the most useful resources at the right time in personally relevant ways.

STRATEGIES FOR IMPLEMENTATION

Since it is assumed with the concerns-based approach that planning for change is a possible as well as an important step for successful change

efforts, thought should be given to some of the over-all strategies that can be employed. For this discussion, a strategy can be thought of as an interrelated set and sequence of activities to facilitate the implementaton of an innovation. Some kind of strategy exists in all change efforts. Unfortunately, most strategies seem to have happened rather than to have been planned.

Any strategy has inherent advantages and disadvantages. Contextual variables and characteristics of particular innovations make some strategies more advantageous than others. At the beginning of the change attempt, the manager of the change process should give thought to exactly which strategy or set of strategies he/she will employ and consider the consequences of each in terms of the Stages of Concern and Levels of Use of the individuals, system implications, and the requirements for implementation support.

In this section, 10 possible implementation strategies are described briefly; the implications, advantages, and disadvantages for each are suggested. No one strategy in and of itself is a complete "game plan" for an implementation effort, and none is without disadvantages as well as advantages. The point is that strategies should be consciously selected, and the change facilitator needs to anticipate the various implications of the strategy chosen. The 10 strategies have been observed in both school and college settings, although teacher-education examples of each are used as illustrations.

1. *The Bootstraps Approach*

This particular strategy is all too frequently found in higher education. The over-all plan begins with the dean and/or several members of the faculty deciding that, with no additional resources or support, a particular innovation will be implemented. The catch is that not only are no resources available but everything that is presently being done must continue. The assumption seems to be that more energy is available in the existing resource system of faculty time, skill, and interest. It is further assumed that change does not cost.

The potential advantage of the Bootstraps Approach is that the implementation effort should not cost a great deal in terms of hard resources ($). However, it has an inherent weakness in that the users may not have the time and resources it takes to implement the change fully, thereby endangering the whole effort. (The often-heard statement, "I could build better modules than those in the middle of the night," has near-zero predictive validity.) Further, the Bootstraps Strategy in practice calls on the same faculty members and staff who already are doing the most. In the long run, the Bootstraps Strategy burns out many of the most potentially effective faculty members and administrators.

In terms of concerns, the Bootstraps Approach arouses a great deal of initial Personal (Stage 2) and Management (Stage 3) concerns: "Where am

I supposed to find the time for this?" Personal concerns are exacerbated further if no clear statement of priorities is issued by the administration.

2. *The Sabbatical Leave Strategy*

The Sabbatical Leave Strategy was used extensively in the TTT (Training Teachers of Teachers) grants of the late 1960s and early 1970s. In this strategy, a member of the faculty is "selected" to spend a sabbatical leave at an institution that already is using the innovation. The assumption is that the faculty member will become tooled-up in the use of the innovation and, upon return to his/her home institution, will provide resident expertise for the change effort.

The potential advantages are that the home institution is able to develop in-house expertise, establish closer ties with another institution, and keep the costs reasonable with, at the most, the investment of one faculty member's time.

There are several potential disadvantages, however. Observation of this strategy in practice indicates that, in general, the faculty member who is selected to go on sabbatical leave is likely to be the one that the institution can most afford to have gone. Chances are that this faculty member is not the one who will be most credible upon his/her return, nor will he/she be the one who is most able to acquire the skills that are needed during the visit to the other institution. Further, unless other strategies are employed at home while the potential change agent is gone, the back-home faculty members are not apt to accept the new-found expertise when he/she returns from the "vacation." 59

3. *The Superstar Strategy*

The Superstar Strategy has been employed quite successfully by several teacher-education institutions implementing competency-based programs. The basic design of the Superstar Strategy is to hire one or more young, bright, hustling, highly competent, productive, upward-bound Ph.D.s.

These "superstars" come to the campus bringing with them the expertise needed to implement the innovation. They also bring ties to the national movement in the area of the innovation and ties back to the prestigious institutions where they were trained.

One potential disadvantage of the Superstar Strategy is that superstars are not institution bound; they are, instead, profession oriented and are apt to move, in four or five years, to the next step in their climb up the professional ladder. Further, many superstars are not skilled in working with other faculty members. The result may be an "us-versus-them" phenomenon wherein the superstars may establish a program which the regular line faculty do not own, since it was developed by "them" and not "us." A further potential disadvantage is that if several superstars are hired, a rivalry or open warfare may develop among them;

as they are highly competitive and striving individuals, they may end up competing with each other in counterproductive ways

4. *The Experimental Program*

Experimental programs have been a very frequently practiced strategy in teacher education. A select few of the faculty are given special permission to develop an experimental program and operate it alongside the regular program.

The potential advantages include the fact that not all faculty have to go through the struggles, trials, and tribulations of developing the program. The bugs can be worked out in an experimental program and then a more efficient program can be institutionalized at a later date.

The potential disadvantages include the fact that the experimental program may not get institutionalized. In many cases, the experimental program is developed, establishes a reputation of its own, and is frequently visited by educators who are interested in learning about it. However, the regular program remains untouched. In one case, the experimental program received national and international fame, but for the eight years of its life it remained in a refurbished house on the edge of the university campus while the regular program went on unaffected. Ownership of the program is also a potential problem. The administration and the program staff need to make certain that they are constantly reaching out to the regular faculty members to involve them in the development and evolution of the experimental program.

5. *The Decree or Mandate*

Although classified as a strategy, this approach occurs more as an event with delivery of the word. It is a common occurrence in schools, and its frequency appears to be increasing in higher education. With this strategy, a change is announced: "As of September, the teacher-education program will be competency based." "As of 1978, mainstreaming will be a part of both elementary and secondary teacher-education programs."

Decrees and mandates have several advantages. (a) The change is "accomplished" instantaneously and the faculty members are aware of administrative priorities so that confusion about how the faculty should be investing its time is less likely. (An interesting hypothesis that needs an empirical test is that in higher education, the decree/mandate may be one of the most effective strategies, given the present liberal operational definition of academic freedom.) The disadvantages of the Decree/Mandate Strategy are that it does not take into account the assumption that change is a process rather than an event. Decrees, especially those without the provision of additional resources, result in the faculty's not being able to accomplish all that is expected. In several cases, administrators who have made decrees have later been fed half-truths and misinformation and,

thus, they are not fully aware of the lack of full implementation of their decrees. "Oh yes, we have been competency based for several years."

6. *Hit-and-Run Workshops*

Hit-and-run, or "God-bless-you," workshops are the norm in many school systems; they are not so common in higher education because so few faculty members seem to participate in and see the need for inservices (although this attitude, too, is changing). The general format for this strategy is the one-to-five-day workshop in which all the wonders and trappings of the innovation are introduced, normally by a consultant from far away (very far away). At the end of the "training," the consultant heads for the airport saying, "God bless you! Good-bye." The institution and the users are left to implement the innovation using the discovery approach. That is, during the time of Mechanical Use (LoU III), the faculty and the administration are left on their own to discover both the problems and their solutions.

The advantage of this strategy is that the faculty gets some training and some knowledge and skill development before it begins to use the innovation. The disadvantage is that follow-through during the implementation process is not provided, and the faculty members use a great deal of energy attempting to discover for themselves what the problems and solutions are. At many institutions, recent innovations, such as modules, IPI, and IGE, have not lasted because of the lack of follow-through hand-holding during implementation.

Good-Time Workshops. Good-time workshops (which are often hit and run as well) are also frequently employed in school settings. The strategy here is nonexistent. The sole goal of the good-time workshop is high happiness coefficients for the participants on the end-of-workshop evaluation forms. Change is not expected of administrators, workshop participants, or the trainer. In its purest form, the honorarium received by the leader of the good-time workshop is prorated, based on the value of the happiness coefficients. Good-time workshops frequently are practiced in states and institutions where inservice is mandated and a number of days per school year are set aside for it, but there is little or no expectation of actual change in the classroom.

7. *The Pennsylvania Contingent*

The Pennsylvania Contingent is usually based on changes in the administrative structure. This strategy begins with replacing the unit manager — the dean or superintendent — by someone from Pennsylvania (or wherever). The new administrator immediately recognizes that there is a leadership gap and that he/she needs reinforcements, so one of his/her former colleagues (from Pennsylvania) joins the administrative staff as an assistant dean/superintendent. The assistant dean's wife needs a faculty appointment, and an old colleague from a professional association

is also brought in as a senior faculty member in one of the problem departments. The Pennsylvania Contingent normally increases in number very quickly.

The potential advantages of the strategy include the addition of new resources, leadership, and ideas to the institution. The potential disadvantages are that the members of the Pennsylvania Contingent talk only to themselves about all the problems of the institution and how they will cure all the ills, while the regular faculty sits on the side saying, "We'll be here long after they're gone." This strategy also can result in an "us-versus-them" phenomenon that will further reduce chances for successful change.

8. *The Multiple Adoption Design (M.A.D.)*

The Multiple Adoption Design is most often practiced in school systems. In higher education, one innovation at a time is plenty. With the M.A.D. Strategy, an attempt is made to implement many different innovations concurrently. The M.A.D. Strategy can be readily observed in Title I schools that have "innovative" superintendents, and in suburban school districts where there was a need to appear progressive in the 1960s and a return to the basics in the 1970s.

The consequences of this strategy are several: One (normally seen as an advantage) is that many different innovative efforts can be listed as "in use"; thus the school systems are labeled "innovative." A second, less advantageous, consequence is that users of the innovations experience "system overload" in which they have more to implement than they can possibly manage because, once again, change is a process and not an event. Thus, as new innovations are added each year, the overload on the teachers, classrooms, and children quickly reaches a point of diminishing returns.

9. *The Wonder Woman/Superman Strategy*

This strategy is more frequently found in higher education. The plan here is to select one faculty member to become the key leader of the change effort. This person can be either a senior faculty member, a young faculty member, or a new person who is brought in to encourage the change effort. Using young or new faculty members has a potential disadvantage in that not only will senior faculty see them as lacking credibility but, also, promotions and tenure may be jeopardized. Further, new personnel will be unaware of all the intricacies and politics of the institution and may not be able to work so effectively in the change attempt.

Other potential disadvantages of this strategy are that the change leader(s) may become overloaded and that the administration may not publicly back them, leaving them on their own to implement a change

that they are held accountable for but do not have the authority or the resources to make the faculty follow through on.

10. *The Matrix Management System*

This strategy can have dynamics similar to those of the Wonder Woman/Superman strategy. The change facilitator may strive to get faculty resources from administrators of different departments who do not see the innovation as a departmental priority. Thus, the change facilitator is left out in the cold, filling in with weaker faculty and/or lacking the resources to do the job.

However, this strategy can be very effective when a credible faculty member is used, since the faculty member has enough time to do the handholding and provide the supportive activities required during implementation. The strategy also can result in many faculty members having ownership in the innovation, and the input to them can be individualized and personalized. The following case study illustrates many of the potential advantages of this strategy.

A Mainstreaming Case Study

As part of the preparation for writing this chapter, a site visit was made to one Dean's Grant Project. The particular institution selected was the University of Missouri-Columbia which, at the time of the visit, had had a Dean's Grant for approximately two years. The project is referred to as Project PREME — *Preparing Regular Educators for Mainstreaming the Exceptional.* (The PREME Project is described in part in Section 3 of this book.) The site visit was made during May 1977. 63

The design of the site visit entailed collecting Stages of Concern and Levels of Use data as the two key diagnostic dimensions for assessing the extent of faculty involvement with the Dean's Grant Project at the time of the visit. In addition, project publications, including newsletters and reports, were studied prior to the visit.

Stages of Concern were assessed with the 35-item Stages of Concern Questionaire, while Levels of Use were assessed through a focused interview procedure. Prior to the site visit, the Stages of Concern Questionnaire was completed by the faculty and administration of the College of Education; the individuals were asked to respond in relation to their present concerns about Project PREME. Of the 157 Stages of Concern Questionnaires distributed, 75 were returned in time for processing before the site visit.

The site visit itself consisted of two days of interviews with faculty, administrators, and students. An express request was made that the individuals to be interviewed cover a broad range, including persons who were active and inactive, relative to the project, and some who were resistant to the project. A semi-formal Levels of Use interview was

conducted with seven administrators, including Dean Bob Woods; the Project Coordinator, Dr. Judith Grosenick; 12 faculty members; and four students. An over-all Levels of Use assessment was made for each person interviewed, with particular emphasis placed on the amount of his/her knowledge of Project PREME activities. The interviewees also were asked to identify key components and elements of Project PREME of which they were aware or had been involved with.

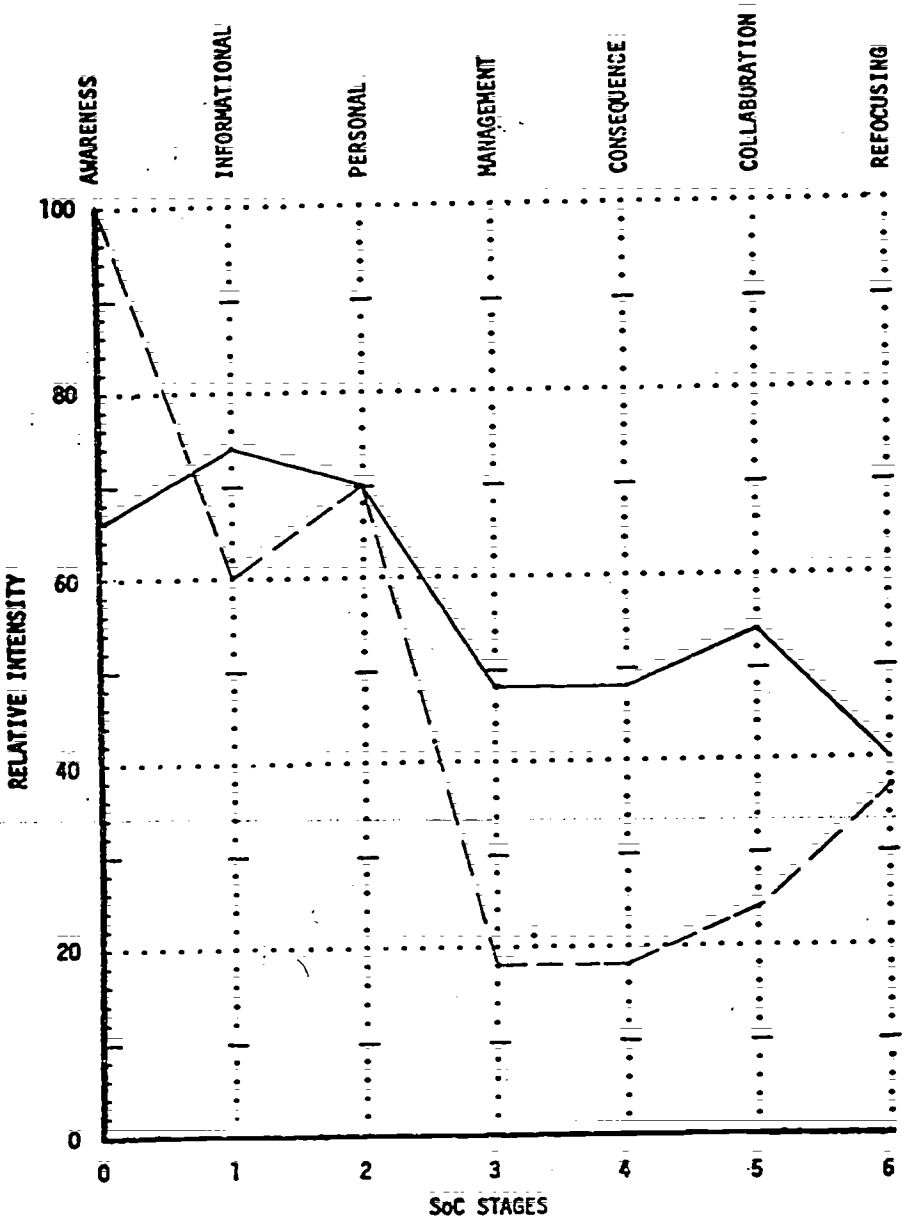
Briefly, the primary change facilitator for the project, Dr. Judith Grosenick, an established faculty member in the Special Education Department, was assigned 75% time to the project, teaching 4-6 credit hours per semester in the experimental program and working with college faculty and administrators relative to mainstreaming. She serves in this role with full and public backing by Dean Woods. The key administrators have been involved in the project since its early days through the establishment of an Advisory Committee.

The best name for the over-all strategy of the project to date is *Information Saturation*. The major goal, as expressed by Dean Woods, Dr. Grosenick, and others, has been to create initial awareness of and interest in the concept of mainstreaming among the faculty and administrators. They used many different activities and opportunities within the over-all Information Saturation plan. The potential for involving interested faculty and administrators has been present at all times.

A key advantage has been that Dr. Grosenick's style is very personal and friendly. She is highly respected by the faculty and administration and was well established prior to the beginning of the project. Further, the dean steadily supports the effort. He has the goal of integrating the concepts of mainstreaming into many courses clearly in mind, and he expects that all courses will pay some attention to mainstreaming by the end of the project.

The Stages of Concern and Levels of Use data, which have been collected, are summarized in Figure 3 and Table 4. In the concerns profile, in Figure 3, the solid line is typical of a nonuser population; however, several subtle positive strengths in this concerns profile are worth noting. The Stage 0 (Awareness) score for the group as a whole is slightly lower than the Stage 1 (Informational) and Stage 2 (Personal) scores. Further, the Stage 2 score is slightly less than the Stage 1 score, and the Stage 6 score "tails off," pointing downward. Contrast this concerns profile with the broken line, which is a typical concerns profile of individuals who are not open to or supportive of an innovation. The Stage 0 score is much higher than the Stage 1 and 2 scores. The Stage 2 score is also higher than the Stage 1 score, and the Stage 6 score does not tail down, but up.

Clinical interpretation of these two concerns profiles suggests that the Project PREME concerns profile represents a group of knowledgeable, positively interested, and open nonusers of the innovation. The higher



Key: ——— =University of Missouri-Columbia faculty and administration

- - - - - = Example of resistant nonuser

Fig. 3. Stages of Concern profile for the University of Missouri-Columbia faculty and administration as contrasted with a resistant nonuser concerns profile.

Table 4

Levels of Use Ratings for the University of Missouri-Columbia Faculty and Administrators Relative to the Innovation of Project PREME

	Levels of Use								
	Nonuse	Orientation	*Preparation*	Mechanical Use	Routine	Refinement	Integration	Renewal	
	0	I	II	III	IVA	IVB	V	VI	Total
Number of Individuals	4	6	0	1	3	1	3	1	19

scores in Stages 4, 5, and 6 suggest, as is true at the University of Missouri-Columbia, that the sample is made up of many users as well as nonusers. The broken-line profile is an example of high personal concerns and of a feeling of "I have a better idea than yours." This concerns profile would indicate potential resistance to the innovation.

The Levels of Use distribution (Table 4) reflects that both nonusers and users were interviewed, with four individuals at Levels of Use IVB or above. "Users" in this context means that these individuals were actively engaged in project PREME activities and in using project resources. The largest group, however, is concentrated at Level of Use I, Orientation, indicating that the behaviors are those of nonusers of the innovation who are looking at, thinking about, and considering the innovation *but* have not yet decided to commit themselves to using it, that is, to move to Level of Use II, Preparation.

Table 5 lists different elements of the Information Saturation Strategy that were identified by the interviewees. Note the wide range and diversity of elements that were used during the two years. They range from an Advisory Committee of key administrators, to the development and publication of "Project PREME Prints" (a newsletter), to faculty retreats, to a series of five inservice seminars around special education concepts presented by Special Education Department faculty, to development of a special experimental program for undergraduate teacher education majors. In other words, the Information Saturation strategy has been backed up with many different activities using different kinds of formats and media, which were spread across the two years of the project. Note that Dr. Grosenick herself is identified as one of the key elements and sources of information. These data are indicators of the positive effects of the strategy.

In summary, one's impressions of the College of Education at the time of the site visit is that the faculty members have become fully aware

Table 5

Frequency of Interviewee Nomination of Information Saturation Activities Employed in Project PREME

Frequency	*Activity*
6	PREME Program
4	Advisory Committee
3	Competency Survey
10	Special Education seminars for faculty (Fall 1976)
7	Kansas City 3-state working conference
8	PREME Newsletter
9	College of Education faculty retreat (January 1977)
2	Retreat follow-up questionnaire
1	State certification law
6	Activities of Project Coordinator (visits, classes, meetings, etc.)
7	Campus Inn faculty retreat (1½ years ago)
2	Department Chairmen Discretionary Fund (just happened)
1	Dean's memo
2	Film strip tape presentation about Public Law 94-142

of the concept of mainstreaming and are genuinely concerned about it. They see it as a natural and logical activity that should be incorporated within their courses, with very little resistance. Actually, there is a great deal of expectant interest in and beginning activities toward accomplishing this goal. The Information Saturation Strategy has worked well. The critical issue at the time of the site visit was, "What will happen to all of those faculty at Level of Use I, Orientation?" Will they move to Level of Use II and on to use of the mainstreaming concepts, or will they regress to Level of Use 0, Nonuse? 67

Research data from another teacher-training institution, identified as University A, illustrate the dilemma faced by the Project PREME change facilitator. Levels of Use data from University A are summarized in Figure 4. At the beginning of a two-year longitudinal study, the faculty members were being introduced to instructional modules. In the first year, many individuals moved from Level of Use 0 to Level of Use I, where they stayed during the second year. When nothing further was done by the administration to "fire the starting gun," the faculty gradually lost interest and became highly concentrated at Level of Use 0 by the end of the second year.

During the University of Missouri-Columbia site visit, it appeared that the time was right for the "firing of the gun." The faculty members are enthused and positively aware of the need, yet not sure how they are going to develop the needed expertise and skill. Many are at Level of Use I, but they will need an impetus actually to commit themselves to use.

Just prior and subsequent to the site visit, Dean Woods and Dr. Grosenick initiated several activities to assist faculty and administrators in identifying resources and making the commitment to move on with the integration of mainstreaming concepts into their courses. These

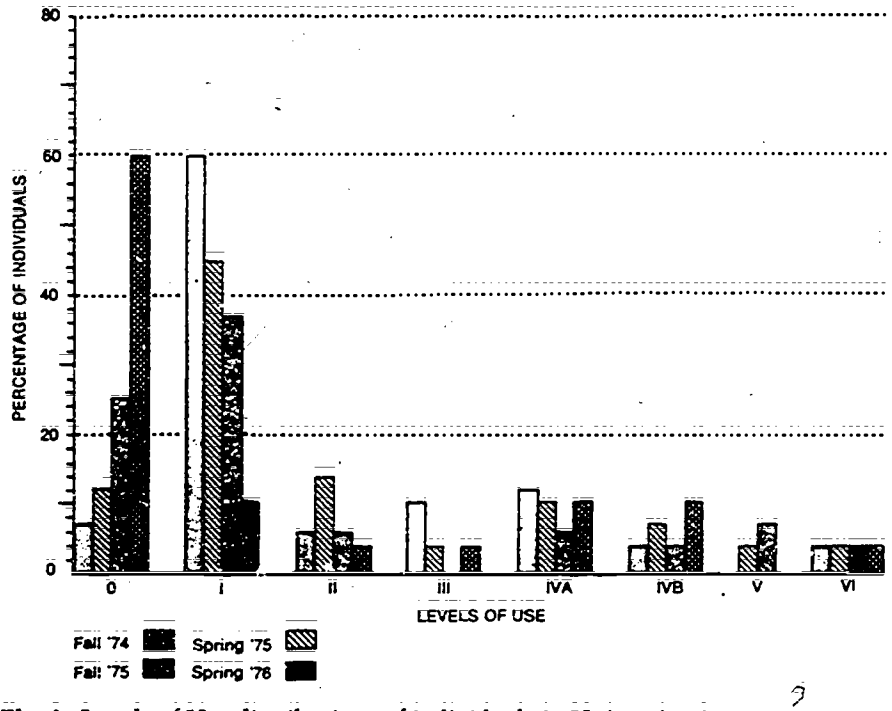


Fig. 4. Levels of Use distributions of individuals in University A over a two-year period. Excerpted from G. E. Hall, A longitudinal investigation of individual implementation of educational innovations. Paper presented at the annual meeting of the American Educational Research Association, New York, April 1977.

moves included providing some grant funds for faculty members to visit campuses where other Deans' Grants Projects are underway, a retreat of key college leaders to help plan and set priorities for the coming year, and the restructuring of the next year's grant proposal to move into more use-facilitating kinds of activities.

Although there are no quantitative data to back up the clinical impression, it appears from talking to faculty and administrators from other colleges and universities, and from reviewing the data reported here, that the administration and faculty of the University of Missouri-Columbia have very successfully initiated a change effort. This observation is supported by the contrast with several colleges where the Decree/Mandate Strategy was employed at the beginning of the Dean's Grant Project. In several of these institutions, there are reports of faculty members and administrators still being actively resistant to the concept two years later, which contrasts strongly with the University of Missouri-Columbia where many faculty members and administrators are actively involved or openly interested in becoming involved, *if* they can develop the needed

knowledge and skills. With the established readiness, subsequent years of the grant will be able to provide the needed support.

Thus, in the case of the University of Missouri-Columbia, the strategies of (a) establishing an experimental program, (b) appointing a senior faculty member who is already established and credible to the faculty as change facilitator, (c) having the clear support of the dean, and (d) using a combination of informative awareness-creating activities, such as newsletters, seminars, and faculty retreats, all combined to form an Information Saturation Strategy that is working successfully.

Implications and Discussion

Many implications have been suggested as this chapter has developed. Admittedly, change in higher education is neither simple nor easy. The unique characteristics and dynamics of any given institution can make change easier or more difficult. A source of additional funds, such as the Deans' Grants, can truly facilitate a change — if the "right" uses are made of the funds. Strong emphasis has been placed on viewing change as a process rather than an event. Further, research concepts and findings have been presented that emphasize the importance of the individual, and some of the dynamics of change from the individual's perspective have been described. CBAM further assumes that there is regularity to the change process and that many aspects of change can be predicted, anticipated, and, therefore, facilitated. 69

In conclusion, some of the predictable aspects of change that the change facilitator should expect and be prepared to address, are as follows:

1. Personal concerns are a very important part of change. It is OK to have personal concerns. It is not OK to put people down for having personal concerns or to ignore them in managing the process.
2. First use of the innovation will be Mechanical. There are no instantaneous and magical cures for the users in the first cycle of use of the innovation. Chances are, for a while, that things actually may be worse than they were before the change.
3. Change facilitators and experienced users must make a concentrated effort to reach out to new users. Simply saying, "We invited them to sign up" is not enough. It is necessary to go out and get them.
4. Change takes time. The sooner policy makers and administrators recognize that there are no instantaneous cures, the sooner there will be a chance for meaningful change.
5. Different persons need different amounts and kinds of implementation support. Asking those faculty members who always are productive to once again take the innovative lead only al-

lows the rest of the faculty to continue as wallflowers. For the whole institution to grow, the wallflowers will have to grow too.

These points are based on one other assumption that is worth noting: An institution, school, or college can accomplish more results and of better quality if the individual faculty members work together rather than separately. Programs are more than collections of courses. As long as there are only individual proprietors, we will have only a cottage industry, although it may be physically located in one place. This assumption leads to the final two implications of the change process:

6. If the unit manager (dean, department chairperson, principal) does not overtly back the change, then it will not last. In formal organizations, very little will change without the conscious support of the formal chain of command. Resources will not be available; a professor will not be able to teach a needed course; an assistant professor will not get tenure and must leave; the classroom will be no longer available; and courses will not be scheduled correctly. Various supports for lasting change require the unit manager's public and ongoing support.
7. Getting it started does not mean that it will be there in five years. Much of the fun and nearly all of the excitement is in initiating a change. The years of debugging, hand-holding, cajoling, sweating, and crying do not have the same glory as the beginning. Our research suggests that it takes very different kinds of people to start change than to institutionalize the innovation. Very rarely do we find both sets of skills in the same leader. This is one time when it appears that changing horses in the middle of the stream may be appropriate!

Lasting and meaningful change is a difficult process requiring a heavy investment of time, effort, and energy. Although uncommon in our institutions today, planned change can and must become the norm. Our research suggests strongly that change facilitators who view change as a process and who focus their efforts on the individuals making the change — their changing concerns, needs, satisfactions, and behaviors — will have an increased chance to make their attempts effective and meaningful.

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