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ABSTRACT

The Concerns-Based Adoption Model (CBAM) for staff development is an empirically-based conceptual framework which outlines the developmental process that individuals experience as they implement a new innovation. The model is based on the assumption that, when persons responsible for implementing change via inservice programs have relevant information about the people experiencing the process, they are better able to provide appropriate and effective support. In diagnosing the individual needs of participants in an educational innovation, two critical concepts are used: the stages of concerns teachers have about the innovation (awareness, informational, personal, management, consequence, collaboration, and refocusing), and the level at which they actually use the innovation in their classrooms. Another concept deemed important in the CBAM focuses upon the innovation itself and the changes it may undergo while being implemented. Interventions possible through the planning of staff development and through the detection of individual needs are also described. A discussion is given of the way in which the CBAM model may be successfully applied in developing an inservice program. (JD)

A CONCERNS-BASED MODEL FOR THE DELIVERY OF INSERVICE

Shirley M. Hord Susan F. Loucks

Research & Development Center for Teacher Education 1980

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A CONCERNS-BASED MODEL FOR THE DELIVERY OF INSERVICE*

Shirley M. Hord
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Introduction

The goal of successful staff development is to change behavior which will lead to school improvement. The goal of the Concerns-Based Adoption Model (CBAM) (Hall, Wallace, & Dossett, 1973) is school improvement through the provision of more timely and relevant facilitation of the improvement process. While much other work is focused at the organization level, the CBAM offers a unique approach to the understanding of the process by centering on the needs of the individual. Thus, the individual who is experiencing the change process within the organization undergoing change is the target of staff development design.

Assumptions

The CBAM is an empirically-based conceptual framework which outlines the developmental process that individuals experience as they implement a new innovation (i.e., a program or process that is new to the individual) and participate in attendant staff development. There are four basic assumptions in the CBAM which provide guidelines for structuring facilitative inservice strategies and activities:

Change is a process, not an event.

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Change is accomplished by individuals first, then institutions.

Change is a highly personal experience.

Change entails developmental growth in both feelings about and skills in using new programs.

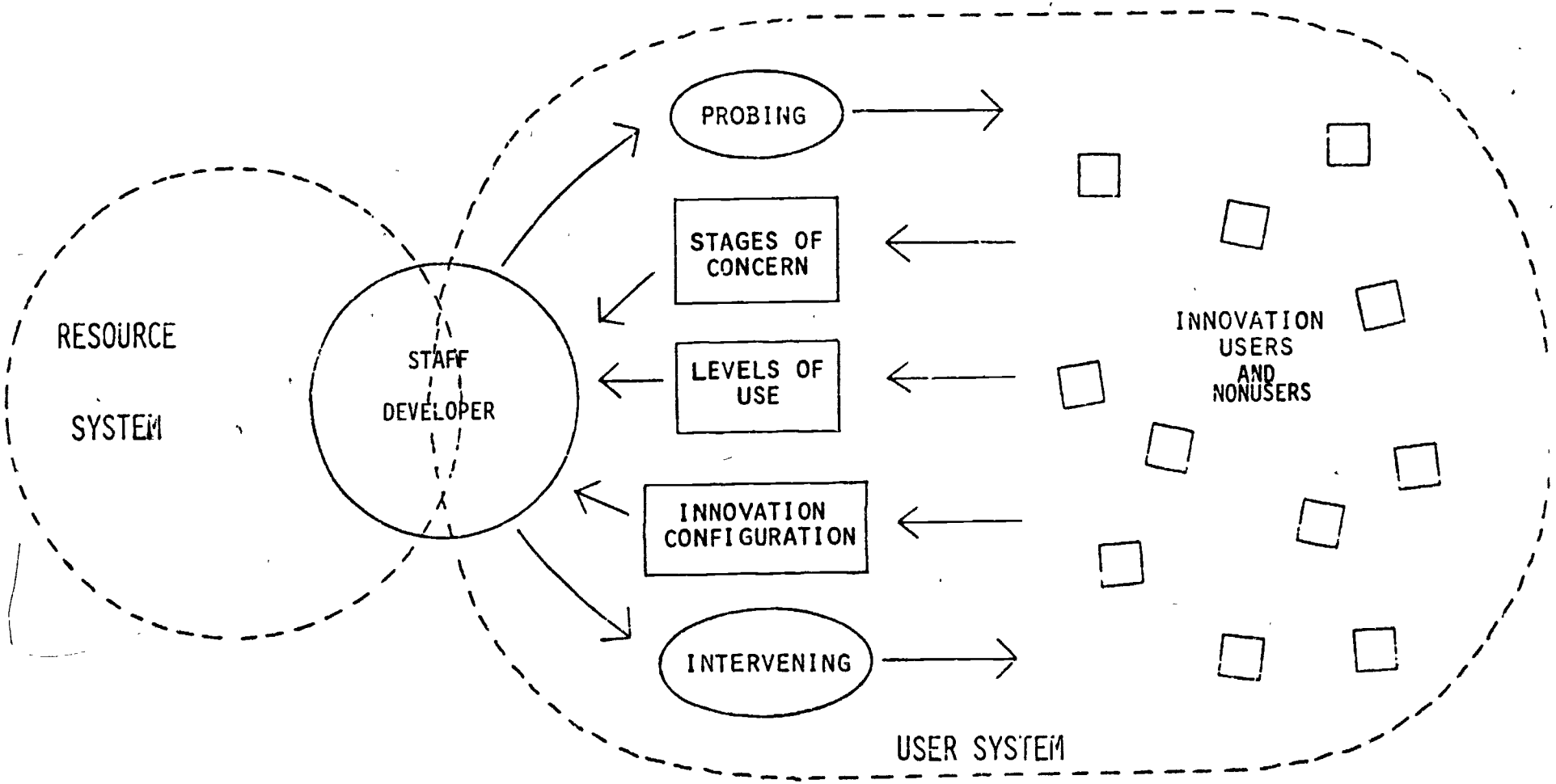
These assumptions underlie the concerns-based approach to staff development; their influence is obvious throughout this paper.

Overview of Model

In essence, the model, diagrammed in Figure 1, views the staff developer (instructional coordinator, consultant, change facilitator, etc.) as a person who has access to resources. This resource system may include informational brochures, materials, equipment, inservice training, consultant services, monies for attending off-site workshops, etc. The staff developer also has CBAM tools for probing or collecting diagnostic information about the individuals and the innovation in the user system. The user system includes teachers and others who may be either users or potential users of the innovation. After diagnostic data are collected, then the staff developer can make concerns-based interventions (supportive and facilitative actions), some of them selected from the resources available, and all of them targeted appropriately toward individuals.

To summarize, when those persons responsible for implementing change via staff development have relevant information about those individuals experiencing the process, they are better able to provide more appropriate and effective support. To explain how the CBAM model can operate to increase the effectiveness of staff development, this paper first describes the diagnostic elements of the model: the two key dimensions that focus on the individual, Stages of Concern and Levels of Use; and the dimension that characterizes the new program or process, Innovation Configurations. Then the prescriptive, or intervening, concepts are presented: Taxonomy of Interventions, a framework for the overall

Figure 1: THE CONCERNS-BASED ADOPTION MODEL



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planning of a staff improvement effort; and Anatomy of Interventions, a tool for considering the design of personalized interventions. After reporting the theoretical components of the model, "theory into practice" applications for staff development comprise the remainder of the paper.

Diagnostic Dimensions

Two dimensions describe teachers as they first begin, and then gain more experience with, educational innovations (such as team teaching, a new math text, an open classroom or an individualized reading program). These dimensions represent a conceptualization of the way the concerns and behaviors of individual teachers change as they become familiar with and involved with these innovations. The dimensions may be used diagnostically to describe or assess individuals so that those responsible for inservice can select the appropriate assistance needed by individuals engaged in a change effort. A third dimension describes the innovation itself as it is being used.

Stages of Concern (SoC)

I. Concept of Concerns

Concerns are the feelings, attitudes, thoughts, ideas, or reactions an individual has related to an innovation. The work of Frances Fuller (1969) focused on the concerns of teachers-in-training as they progressed from early experiences in preservice teacher education programs to being experienced in-service teachers. Fuller labeled this sequence of teacher concerns as unrelated, self, task, impact. Her work is the base upon which Stages of Concern were built.

An early result of CBAM research was the realization that not only do new teachers go through a sequence of concerns about teaching, but all teachers

faced with a new program or innovation have concerns that are identifiable and developmental and are similar to those documented by Fuller. From this research on change, seven Stages of Concern About the Innovation have been identified (Figure 2).

Stages of Concern About the Innovation (SoC) (Hall & Rutherford, 1976), describes the kinds of concerns which the individual may experience across time, related to the innovation. They range from initial self concerns (Stages 1 and 2), "In what ways will I be affected by this innovation?" to concerns related to task (Stage 3), "How can I make this innovation work?" and then to concerns for impact (Stages 4, 5 and 6), "How will using this innovation affect my students?"

Individuals experience a variety of concerns at any one point in time. However, the degree of intensity of different concerns about an innovation will vary depending on the individual's knowledge and experience. Whether the person is using or not using, whether he or she is preparing for use, has just begun use or is highly skilled with the innovation will contribute to the relative intensity of different concerns.

Thus, teachers seldom have concerns at only one stage. Figure 3 illustrates a general sequence that concerns appear to follow. Teachers who are non-users of an innovation generally have concerns high on Stages 0, 1 and 2. They are more concerned about gaining information (Stage 1) or how using the innovation will affect them personally (Stage 2). As they begin to use an innovation, Stage 3 (Management) concerns become higher and more intense. And, when teachers become experienced and skilled with an innovation, the tendency is for concerns at Stages 4, 5 and 6 to become more intense with a decrease in Stages 0, 1, 2 and 3 (Hall, George & Rutherford, 1977).

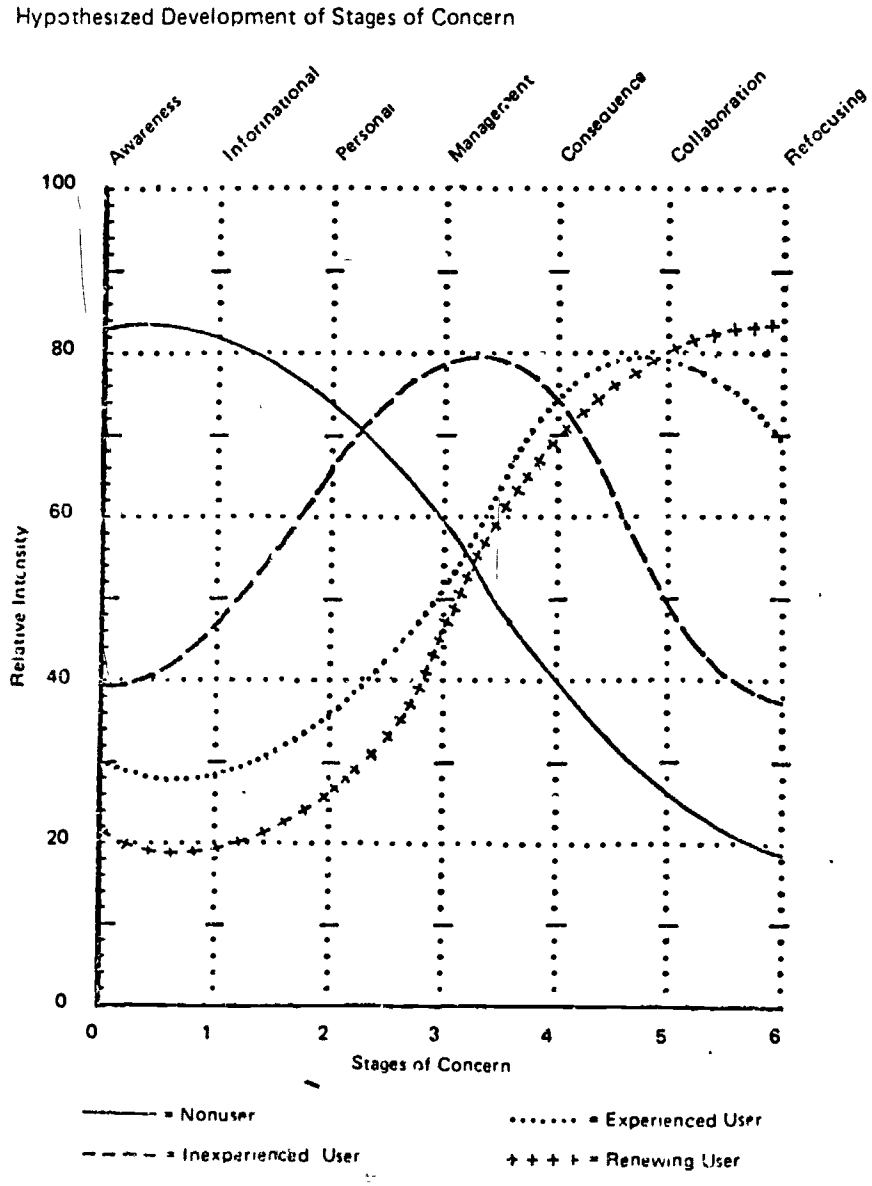
Figure 2:

STAGES OF CONCERN ABOUT THE INNOVATION*

Impact	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 form 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 student 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.
Task	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.
Self	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.
Unrelated	0	*AWARENESS*. Little concern about or involvement with the innovation is indicated.

*Original concept from G.E. Hall, R.C. Wallace, Jr., & W.A. Dossett, *A Developmental Conceptualization of the Adoption Process within Educational Institutions* (Austin, Tex.: Research and Development Center for Teacher Education, The University of Texas, 1973).

Figure 3:



(Hall, George and Rutherford, 1977)

II. Assessing Concerns

There are several ways to assess concerns. One simple way to do this may be called the "one-legged conference" process. In one-to-one interviews, an inservice provider may ask what appear to be casual questions to elicit the concerns of individual teachers. This "listening" technique may be used in telephone calls or when sitting in the teachers lounge. This technique is informal and the results should be viewed in the same way. As a basis for determining individual interventions, this technique is effective. Quite obviously, limitations of use stem from the time required, which might prevent its frequent, extensive use.

Another simple way to find out teachers' concerns is to use the Open-Ended Statement of Concerns About an Innovation. Respondents are asked to write complete statements to answer the question,

When you think about _____, what are you concerned about?
(Please be frank and use complete sentences.)

This measure provides a relatively quick way to get a reading of the concerns of clients. A first reading of the sentences for a general overview should reflect the individual's affect and needs. A second reading should reveal more substantive and detailed clues in each sentence. Each statement could be scored for its Stage of Concern. A Manual for Assessing Open-Ended Statements of Concern About an Innovation (Newlove & Hall, 1976) provides more information about interpreting concerns statements.

A third process for assessing concerns is the use of the Stage of Concern About the Innovation Questionnaire (SoCQ) (Hall, George & Rutherford, 1977). This "psychometrically rigorous" paper and pencil measure is especially important for research and program evaluation and consists of 35 items. Teachers respond by indicating their degree of concern on a Likert scale for each of the

items. Scoring these data by computer program, or manually, results in percentile scores and a profile of concerns for the individual, or for groups.

Levels of Use (LoU)

I. Concept of Use

A second concept which provides a basis for designing personally relevant inservice or staff development activities is Levels of Use. This dimension describes how performance changes as the individual becomes more familiar with an innovation and more skillful in using it. Eight distinct Levels of Use have been identified (Hall, Loucks, Rutherford & Newlove, 1975). In general, individuals first "orient" themselves to the innovation. Usually, they begin to use an innovation at a "Mechanical" level, i.e., planning is short-term and organization and coordination of the innovation are disjointed. As experience increases, innovation use becomes routine, and eventually it may be refined. At the three refinement levels -- LoU IVB Refinement, LoU V Integration, LoU VI Renewal -- changes are made in the individual's use based on formal or informal assessments of students' needs. See Figure 4 for brief definitions of the eight levels.

II. Assessing Use

An informal interview may be used by staff developers and other facilitators as a means for obtaining clues and hints about an individual's overall Level of Use of a program. Such casual questions as those provided in Figure 5, Branching Questions, help to reveal the level on which a person is performing. These one-to-one interviews provide informal information, useful for selecting individual interventions. Used in concert with the "one-legged" concerns conference this casual interview provides a "two-legged" conference -- with strengthened descriptors and information about "where a person is" with respect

Figure 4:

LEVELS OF USE OF THE INNOVATION: TYPICAL BEHAVIORS

LEVEL OF USE		BEHAVIORAL INDICES OF LEVEL
VI	RENEWAL	THE USER IS SEEKING MORE EFFECTIVE ALTERNATIVES TO THE ESTABLISHED USE OF THE INNOVATION.
V	INTEGRATION	THE USER IS MAKING DELIBERATE EFFORTS TO COORDINATE WITH OTHERS IN USING THE INNOVATION.
IVB	REFINEMENT	THE USER IS MAKING CHANGES TO INCREASE OUTCOMES.
IVA	ROUTINE	THE USER IS MAKING FEW OR NO CHANGES AND HAS AN ESTABLISHED PATTERN OF USE.
III	MECHANICAL USE	THE USER IS USING THE INNOVATION IN A POORLY COORDINATED MANNER AND IS MAKING USER-ORIENTED CHANGES.
II	PREPARATION	THE USER IS PREPARING TO USE THE INNOVATION.
I	ORIENTATION	THE USER IS SEEKING OUT INFORMATION ABOUT THE INNOVATION.
0	NONUSE	NO ACTION IS BEING TAKEN WITH RESPECT TO THE INNOVATION.

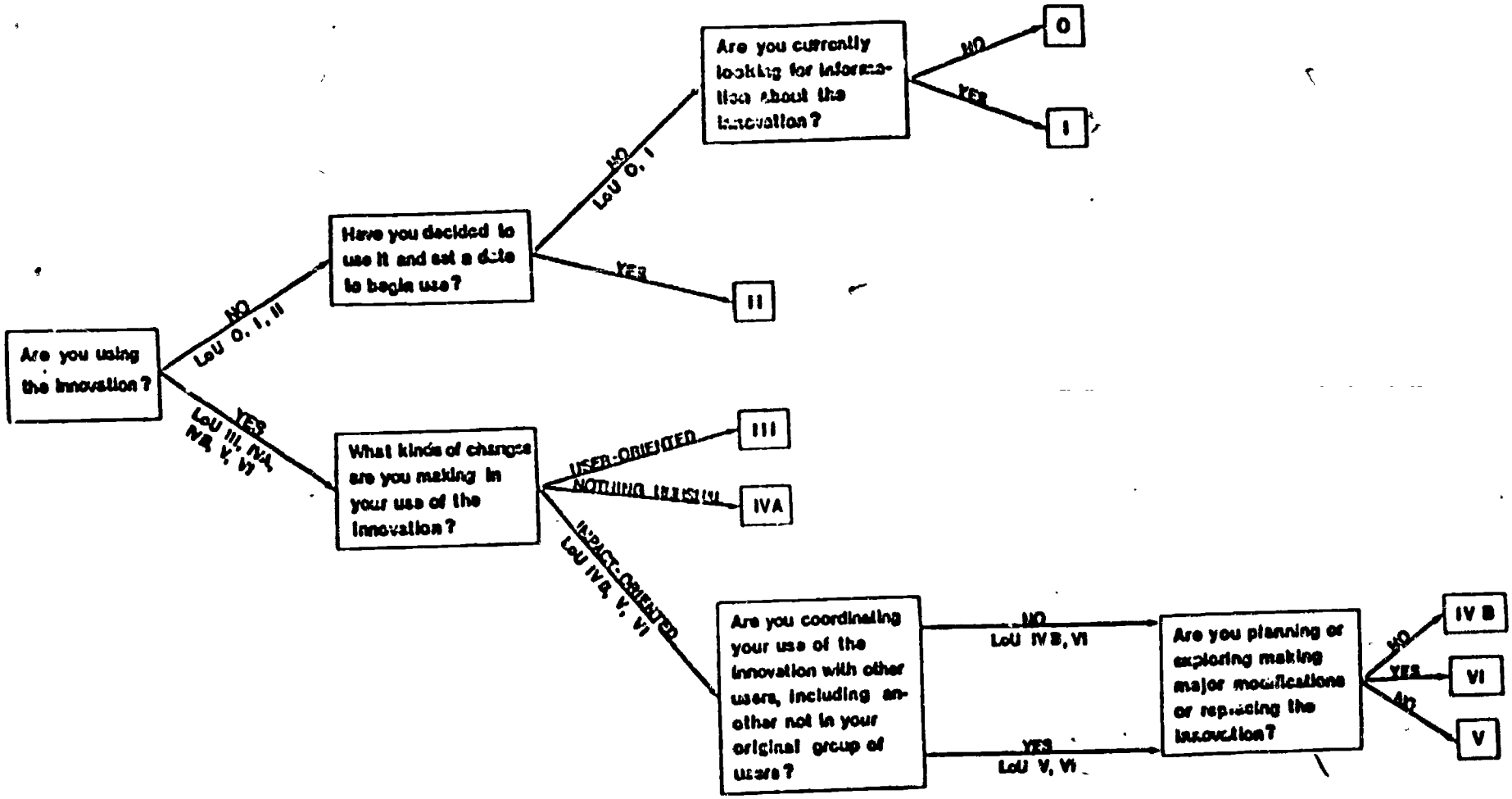


Figure 5: Overview of Branching Format of the LoU Interview

Excerpt from: Loucks, S. F., Newlove, B. W, & Hall, G. E. Measuring Levels of Use of the Innovation: A Manual for Trainers, Interviewers, and Raters. Austin: Research and Development Center for Teacher Education, University of Texas, 1975.

to an innovation. Such interviews yield data for monitoring and facilitating each individual's development and growth related to the innovation.

A second interview procedure has been developed to measure Levels of Use. This focused interview (Loucks, Newlove & Hall, 1976) is based on a prescribed set of questions designed to elicit more rigorous (psychometrically valid and reliable) data. These quantitative data permit the rating of an individual at overall LoU and in seven descriptive categories of use: knowledge, acquiring information, sharing, assessing, planning, status reporting and performing. Such data, obtained by carefully trained and certified interviewers, provide specific information on the state of implementation and are useful for formative and summative evaluation purposes.

Innovation Configurations (IC)

I. Concept of Configurations

Another concept deemed important to understanding the school improvement process focuses on the innovation itself. Staff developers are aware that individuals change in the implementation process; innovations also change. It cannot be assumed that an innovation is in use in an unaltered form just because it is supposed to be. The classroom operational forms often bear little resemblance to the original model of the developer. Emrick, Peterson, and Argawala-Rogers (1977) described this phenomenon:

> There is a trend for adopters (56%) to begin implementing only selected aspects of the innovation rather than the entire innovation. At the same time, adopters will modify methods and materials in what they believe are reasonable ways, so as to make the innovation more consistent or compatible with local conditions (p. 116-8).

Innovation Configurations are the various forms of an innovation that result when users "adapt" it for use in their particular situations. As an innovation is disseminated and the developer's model is translated into practice in

different classrooms, one or more of the components of the innovation may be modified to fit local needs. In different classrooms the different components may be adapted in different ways. Thus, any one innovation can be said to have several different operational forms or innovation configurations (Hall & Loucks, 1978).

II. Identifying Configurations

The key to identifying innovation configurations is to first determine the components and the component variations that describe the innovation in use. The five-step process for determining the configurations that teachers are using is outlined in Figure 6. The steps are:

1. Interview developers and facilitators for essential components. The first step is to determine what the innovation is "supposed" to look like in practice. Previous experience in interviewing facilitators (and developers) has indicated three questions to be most useful:

a. What would you observe when the innovation is operational?

b. What would teachers and others be doing?

c. What are the critical components of the innovation?

This first step results in a preliminary set of key components of the innovation with some suggested variations.

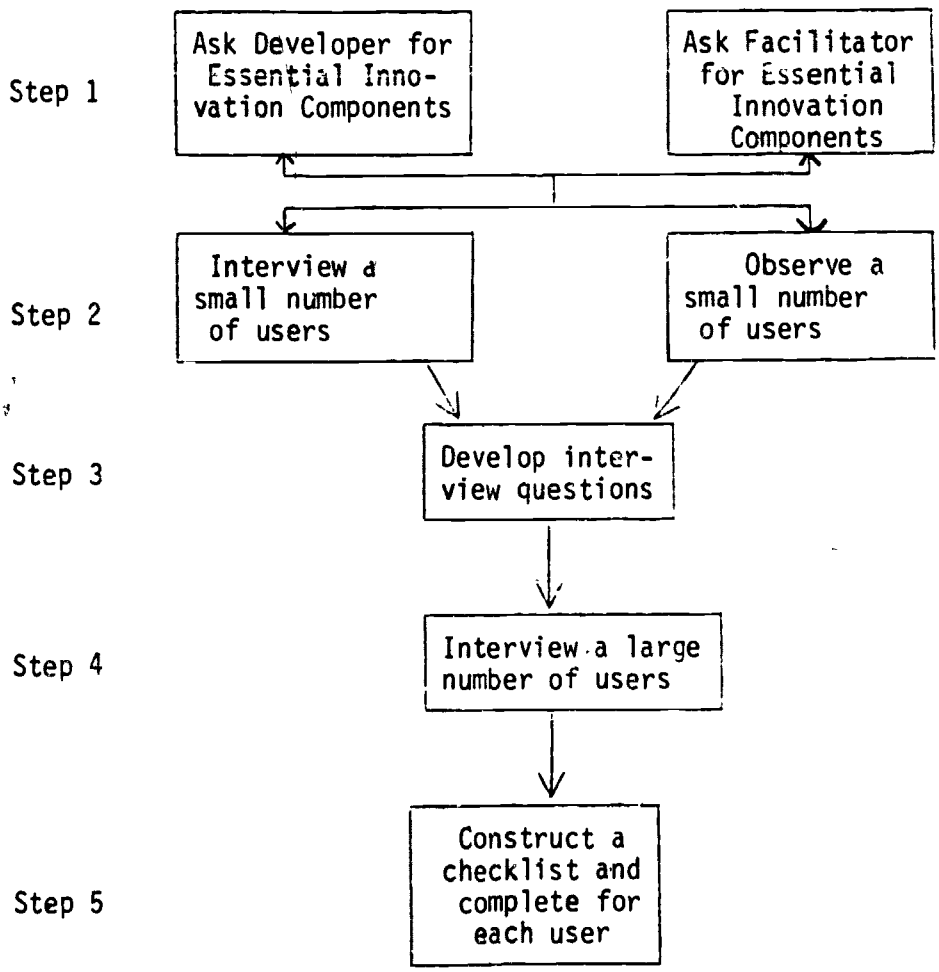
2. Interview and observe a small sample of users for variations.

For this step a small sample of users is selected to represent a wide variety in use of the innovation. An interviewer might ask for a general description of how the innovation is used. Observations also should be broad-based. As a result of this step, more components may be added to the list and more variations can be identified under each component.

3. Develop interview questions.

Figure 6:

A Procedure for Identifying Innovation Configurations.



(Adapted from Hall and Loucks, 1978)

As a result of steps 1 and 2, a tentative list of components and component variations is developed. In step 3 interview questions are developed to probe users about each of these components.

4. Interview.

Interviews are then conducted with all of the persons from whom data are needed. The interviews should be taped or notes should be taken about use of each of the components of the innovation.

5. Construct an innovation configuration checklist.

Resulting from the preceding steps are a list of innovation components and a set of variations within each component. These can be formulated into a checklist. This checklist may be completed by the interviewers for each user of an innovation or they may be filled out directly by the users. When the checkists are completed, each teacher's different operational form of the innovation will be evident.

Figures 7 and 8 are two sample component checklists. Figure 7 offers a simple description of use and thus is from a user's perspective. Note that Figure 8 offers a developer or facilitator's perspective, clearly denoting which variations are preferred and which are merely acceptable.

Prescriptive Frameworks

It is high time that a model be available, first for describing the concerns and behaviors of teachers who are expected to change as they are involved in school improvement, and second, for facilitating improved use of the programs they are using. The ideas and notions are presented in the initial part of this paper are not all foreign to staff development people. While many staff developers have used similar concepts informally and perhaps intuitively, a formal articulation is necessary if they are to use the concepts systematically.

Figure 7:
Math Program Checklist

Please check one choice for each of the six categories below that is the most descriptive of your math instruction.

1. Instructional materials:
   ____ (1) Primarily textbook(s)
   ____ (2) Primarily material packets provided by the program
   ____ (3) Wide variety of materials, possibly including text(s), program packets, games, manipulatives, kits, centers, etc.

2. Grouping:
   ____ (1) Teach whole class or two groups
   ____ (2) Teach 3 or more small groups
   ____ (3) Teach individuals only, no grouping

3. Objectives:
   ____ (1) Program objectives are taught largely in sequence
   ____ (2) Program objectives are taught largely out of sequence
   ____ (3) Program objectives are not taught

4. Testing:
   ____ (1) Tests are given for each objective
   ____ (2) Tests are given for groups of objectives
   ____ (3) No tests are given

5. Use of Test Results:
   ____ (1) Test results determine next steps of individual students
   ____ (2) If most of group passes test, the group goes on and those who failed are given special help
   ____ (3) If most of group passes text, the group goes on and no special help is given those who fail

6. Record-Keeping:
   ____ (1) Records are kept by objective for each child
   ____ (2) Records are kept other than by objective for each child
   ____ (3) No records are kept

Figure 8:
Tutoring Program Checklist

1. Materials and Equipment	(1) At least 5 different program materials are used with each child each session.	(2) At least 3 different program materials are used with each child each session.	(3) Less than 3 different program materials are used with each child each session.
2. Diagnosis	(1) Children are diagnosed individually using a combination of tests and teacher judgment.	(2) Children are diagnosed individually using teacher judgment only.	(3) Children are not diagnosed individually.
3. Record-Keeping	(1) Individual Record Sheet is used to record diagnosis and prescription.	(2) No individual Record Sheets are used.	
4. Use of Teaching Technique	(1) Continually readjusts task according to child needs; uses rewards to reinforce student success.	(2) Does not continually readjust task according to child needs; does not use rewards.	
5. Grouping	(1) Children are taught in pairs.	(2) Children are not taught in pairs.	
6. Scheduling	(1) Children are taught for 30 minutes 3 times per week. Each session is equally divided between children.	(2) Children taught for 30 min. 3 times per week, time for each child and each task varies slightly when necessary.	(3) Children not taught for 30 min. per week 3 times per week, or time for each child and each task varies markedly or is not considered.

CODE: ——— Variations to the right are unacceptable; variations to the left are acceptable.

— — Variations to the left are ideal, as prescribed by the developer.

From Hall & Loucks, 1980: IC article

The CBAM model is proposed as a tool for illuminating what has been obscure, for providing handles for what has been fuzzy. CBAM makes it possible to (1) articulate diagnoses of individuals and (2) conceptualize and organize in a coordinated fashion the next steps, the planning and operation of change efforts. (A caveat: Not enough is know about what to do when; study continues in order to learn more.)

Two frameworks, the Intervention Taxonomy and the Intervention Anatomy, have been developed which may be useful for conceptualizing and analyzing the interventions which are needed to facilitate a school change effort. The Intervention Taxonomy provides a way to look heuristically at staff development/ school improvement efforts and construct a comprehensive plan. In contrast, the Intervention Anatomy reveals the internal components of intervening actions, providing staff developers with a framework for designing individual interventions.

Taxonomy of Interventions

Intervention(s) have been defined as action(s) or event(s) which influence use of an innovation. Six levels of intervention have been conceptualized: they are Policy, Game Plan, Strategy, Tactic, Incident, Themes (Hall, Zigarmi & Hord, 1979). Five of these may be thought of as intentional actions, and one, Themes, as resulting from unplanned effects and actions. The planned, or sponsored, levels of interventions are distinguished generally by their size, magnitude or scope, and the intensity or extent of their impact-- more simply, how many individuals are affected and the duration of the action. Definitions and examples of the sponsored levels follow.

I. Definitions of Sponsored Levels

Policy. A policy is a rule or guideline which directs the procedures and actions of an organization. Policies affect most (if not all) of the individuals and are in effect for extended periods of time. Policies serve as the umbrella under which all programs and processes (innovations and those already in place) are governed.

Examples of policy are: (1) Teachers and administrators will be provided inservice training in use of innovations. (2) Teachers are not permitted to paddle students as a disciplinary measure.

Game Plan. A game plan is the overall plan of actions that are taken to implement the new program. It contains all aspects of the change effort, covers the full time period of the change process, and affects all persons directly or indirectly involved.

Examples of game plan are: (1) After initial awareness and information session, accompanied by delivery of the program materials, teachers will independently implement its use in their classrooms so as to best serve their needs. (2) The new curriculum will be phased in one grade level at a time over several years beginning with a pre-school workshop followed by three inservice sessions throughout the school year.

Game Plan Components. There are six components of a game plan. These Game Plan Components are:

1. Developing supportive organizational arrangements -- actions taken to develop policies, plan, manage, staff, fund, restructure roles and provide space, materials and resources to establish and maintain use of the innovation. Examples would be to hire new staff, seek or receive funding, provide equipment.

2. Training -- actions taken to develop positive attitudes, knowledge, and skills in role performance in relation to use of the innovation through formal, structural, and/or preplanned activities. Examples are workshops and modeling or demonstrating use of a new program.

3. Providing consultation and reinforcement -- actions taken to encourage use and to assist individuals within the user system in,

solving problems related to the implementation of the innovation. Examples of such actions are consultant sessions with one or several users, arranging small problem-solving groups and organizing peer-support groups.

4. Monitoring and evaluation -- actions taken to gather, analyze, or report data about the implementation and outcomes of the change effort. Examples might be end-of-workshop questionnaires, periodic assessment of concerns, use of the innovation or configuration of the innovation.

5. External communication ---actions taken to inform and/or gain the support of individuals or groups of individuals external to the users. Examples are reports to the Board of Education, presentations at conferences, public relations campaigns.

6. Dissemination -- actions taken to broadcast innovation information and materials to encourage others to adopt the innovation. Examples are regular mailing of descriptive brochures to potential adopter, making charge-free demonstration kits available, training and providing regional innovation representatives, presenting the innovation at administrator conferences.

Strategy. A strategy is a framework for action, translating the design of the game plan into concrete action to be taken. Strategies cover a large portion of the change process time period and impact most of the users.

Examples of strategy are: (1) Ongoing training sessions are held throughout the course of the implementation effort. (2) Periodically, memos are sent home to parents and PTA orientation sessions are held to gain parental support for program implementation.

Tactic. A tactic operationalizes the strategies, undertaken to affect attitudes toward or use of the innovation. Tactics cover a shorter time period than a strategy and affect many innovation users but not necessarily all of them.

Examples of tactic are: (1) A series of radio broadcasts are made about the project during one month. (2) A one-day training workshop is held.

Incident. An incident is the singular occurrence of an action or event. Incidents may be one of a kind happenings or they may aggregate into tactics and

strategies. Incidents usually cover a very small amount of time and can be targeted at one or more individuals.

Examples of incident are: (1) An innovation specialist gives suggestions to one user about how to improve his/her use of the innovation. (2) The principal tells the project director about teacher schedules.

II. Definition of Unsponsored Interventions

Theme. A theme is a set of recurring actions whose unplanned or unintended effects accumulate and produce a new and unanticipated effect on use of the innovation. For example, because of a family problem a staff developer may miss a meeting related to the change effort. In isolation, this act has no real effect on the change effort, and so would not be considered an "intervention." However, when the action is repeated a number of times, the effects begin to accumulate. The continual absence of the facilitator at the meetings begins to modify the teachers' views of the change facilitator's commitment to the change effort. The set of actions and their cumulative effect on the change effort is called a theme. Early detection of themes can prompt sponsored, or planned, interventions to capitalize on emerging positive themes or to terminate negative ones.

The life of a theme in a change effort varies, often according to the ability of individual facilitators to detect one. The ability to identify and attend to themes may be one key to the success of a change effort. Perhaps change facilitators would find training in the early detection of themes quite useful.

Event. An event is a happening over which there is no control, which has an effect on the change effort. For instance, a severe thunderstorm dumps five inches of rain in a brief time on the resource center, whose roof springs a leak. The result is the disruption of service from the center to its related

schools while the water damage and roof is repaired. During the interim, teachers do not have their needs attended to.

III. Mapping Interventions

It is popularly believed (especially by those who read the weekly sports pages) that a football coach goes into an important game with a plan that is well developed and understood by all the players. There is frequently the preferred "game plan" and a set of ideas to fall back on should the team fall far behind or the game conditions change. Similarly, staff developers should have a game plan that maps the interventions. This is specified in advance so that the change effort is clear and interventions can be designed which are appropriate. This is not to suggest that the game plan might not change as the staff development effort takes place. However, without advance planning and design of an intervention map, the staff developer is unlikely to be able to attend to all of the unanticipated situations that arise. The map contributes a semblance of coherence for facilitating the change process.

If the change or improvement process is serendipitous, rather than being mapped out and planned at all intervention levels, it is possible that effective interventions may occur at only one level. For example, staff developers may plan at the tactic level only, one workshop at a time. For a change effort to succeed, advance planning is best done at as many levels as possible. The game plan map should reflect the interrelationship of all the efforts, and should take into account the advantages and disadvantages of each intervention selected.

It is possible, of course, though certainly not very useful to a staff developer, to construct a map after the fact. This would permit the relating of the interventions made to their various levels; it would permit an analysis of

the interventions so that the presence/absence and frequency at the various levels could be ascertained. This knowledge could be used in planning future staff development efforts.

Anatomy of Interventions: The Coding Schema

The capacity to understand, diagnose and adaptively facilitate staff improvement is based on the ability to understand individuals and on the ability to analyze interventions. Intervention analysis permits the identification of the internal dimensions needed for each individual prescription of staff development. The Coding Schema for Interventions (Hord, Zigarmi, & Hall, 1980) provides change facilitators with a tool which increases understanding of how to select, design or analyze interventions.

I. Definitions of Dimensions

For proactive planning (hopefully), or for retrospective contemplation and analysis, the schema focuses attention on the dimensions of tactic and incident interventions. These dimensions, their definitions and examples follow.

Source. Person(s) who act or events that occur to influence individuals to change. Who are these persons? They might be staff developers, curriculum coordinators, principals, teachers, students, or even events such as snow storms which influence the change effort.

Targets. Person(s) toward whom the intervention is directed. The examples of Targets are the same as Sources except for the addition of the change effort/process as an additional Target. Some interventions are made which have the change process itself as the Target.

Function. The purpose(s) of the intervention. Seven general functions have been identified. Six of these seven groups, all except Impeding, have also been labeled Game Plan Components and may be used as the starting point for con-

sidering all aspects of a change effort. The seven functions are: (1) Developing supportive organizational arrangements, (2) Training, (3) Providing consultation and reinforcement, (4) Monitoring and evaluation, (5) External communication, (6) Dissemination, and (7) Impeding.

These seven functions seem to categorize all likely purposes of a change effort. As has been suggested, as Game Plan Components they may be used as a framework for comprehensively designing or planning interventions, so as to insure attention to all aspects of such an effort.

Medium. The mode or form of the action. Such modes might be face to face or a form(s) of written communication. Additional possibilties are audio-visual formats, communication by telephone, or the public media such as newspaper, radio, T.V., journals.

Flow. The direction of the action. The flow of interventions may be one way (there is action directed toward one or more persons who might respond, but there is no interaction). The flow could be interactive, that is, there could be an exchange of actions between the intervenor and the individual(s) being intervened upon.

Location. Where the intervention takes place. Examples would be the setting (campus or school unit building) where teachers or others are using or learning to use new programs, processes, strategies, the central administration building, or training sites.

II. Use by Staff Developers

By considering the coding schema, staff developers can gain a better understanding of what dimensions should or could be considered in the design of interventions and how to structure them for greater effectiveness. The schema could also be used as a device to monitor how, for whom, for what purposes they

spend their time. The staff developer who understands and takes into account the describable intervention dimensions can more purposefully go about planning actions to support improvement efforts. Appropriate interventions with meaningful functions could be tailored to the needs of individuals, thus operationalizing support, training, consultation, etc., with participants in the process of change. More is said about actual use of the schema in the next section.

Applications of the CBAM to Inservice

There are three general questions that the CBAM can -- and has -- help answer for those who are responsible for inservice training:

1. What would I like to see happen? This involves goal setting for use of a new program, stating clearly how people should change and what the new program should look like.
2. How can I make that happen? This involves the design of inservice, keeping in mind the goals that have been set, the developmental nature of concerns and use, and the choices for delivery systems, modes and timing.
3. How is it going? Once inservice is delivered, CBAM concepts and tools can be applied to monitor and evaluate the extent and quality of use of the new program.

Each of these areas is detailed below, with direct reference to the diagnostic and prescriptive tools described previously, and several examples of alternative applications provided.

What Would I Like to See Happen?

At the beginning of this application section it is necessary to acknowledge that individuals responsible for inservice face many constraints. It would be

optimal if someone in this role is involved with an implementation effort from the point of conception and is given two to three years to facilitate changes in classroom behaviors. Unfortunately, this rarely happens. Instead, they receive many phone calls in July for something to fill two days of teacher inservice in late August. Schools boards demand higher reading scores by June. Calls come to help bail out a district or school where a current implementation effort is on the rocks. Although the potential of CBAM ideas is optimized in efforts where adequate time and resources are available and expectations are realistic, the more short-term, "emergency" situations can benefit from the use of CBAM as well. Examples are given of CBAM applications in various kinds of situations.

Goal-setting is a logical first step in inservice efforts, though it is often ignored. Explicit goals allow for more thoughtful, specific design of interventions, as well as criteria to help determine when an effort has succeeded.

I. Making Goal Statements

The three CBAM diagnostic dimensions -- concerns, use, and innovation configurations -- assist in making an explicit statement of what should be happening in classrooms after the delivery of adequate inservice. Several possible goal statements are:

1. Every teacher should be at least at Mechanical Level of Use (III), with a "user" concerns profile (Stages 0-2 lower than Stages 3-6) and be using at least two-thirds of the program's components.

or 2. Every teacher should be at least at Routine Level of Use (IVA), with low concerns on Stages 0-3, and be using the program in a minimal acceptable configuration (all essential components in use),

or 3. Every teacher should be at least at Refinement Level of Use (IVB), with high impact concerns (Stages 4, 5 and/or 6) and be using the

program in the ideal configuration.

Of course, it is possible to have many other goal statements, and these are only simple examples. However, these examples make it obvious that different goals require different kinds, intensities, and lengths of inservice programs. To achieve goal statement 1, it may be possible to simply deliver a pre-school how-to-do-it workshop and apply administrative pressure for use in the classroom. (Parenthetically, it is worth noting that use such as this at a Mechanical Level will probably not last long since it is forever fraught with management problems and unanticipated occurrences. This program is doomed.) On the other hand, to achieve goal statement 2, follow-up is required to solve specific management problems and reinforce use of each component. And goal statement 3, if it can ever be accomplished, requires years of follow-up after program introduction, focusing in-depth on individual teachers and involving him or her in classroom analysis and refinement.

Establishing goals is not an easy task. Often, when goals are not explicit, something approximating goal statement 1 is achieved. In one large- scale implementation effort, goal statement 2 was set, and three years later was nearly achieved (see Loucks & Melle, 1980, for more detail). It is important to note that all three CBAM diagnostic dimensions are not always necessary for the setting of goals. It largely depends on what teacher change is required or desired. If a change in attitude is the goal, perhaps only concerns need to be used.

It is possible to use the idea of CBAM goal statements in a less-than-ideal inservice situation. To save a foundering program, the goal may be simply to reduce Management or Personal concerns. In a two-hour awareness session, the goal may be to decrease Informational and Personal concerns. And in a one-day session on analysis of classroom interactions, the goal might be to increase the

number of teachers at the Refinement Level of Use. Thus goal setting may be a short-term as well as long-term process. Once goals are set, the design and delivery of inservice are in order.

How Can I Make That Happen?

The CBAM has many applications to inservice, some simple, some complex, some quick and dirty, some far-sighted and intricately planned. In this section we begin with a long-range, somewhat complicated design for inservice delivery, utilizing all the diagnostic and prescriptive dimensions of the CBAM. Realizing that such a design may not always be practical or possible, we also offer some less complex applications.

I. Activities Targeted at Concerns

There are many kinds of game plans, but here we suggest those which consider the concerns of teachers as a framework. Concerns research reveals that concerns change over time in a fairly predictable, developmental manner. Figure 3 illustrates this observation. If we can predict how concerns change throughout an implementation effort, we can design inservice activities which focus directly on different kinds of concerns as they emerge. It is important to note here that our suggestions for particular kinds of inservices to meet particular concerns are based on our own years of experience and input from dozens of people with inservice responsibility. We do not, however, have hard experimental research data that compare the effects of one intervention with another for people with the same kinds of concerns. This kind of research we hope to conduct during the next five years.

A paper by Hall (1979) describes characteristics of activities that would be appropriate for teachers at different Stages of Concern. Among these are:

Stage 0:

Tie the innovation to an area that the teacher is concerned about.
Encourage the teacher to talk with others about the program.
Share information in hopes of arousing some interest.

Stage 1:

Share descriptive information: brochures, short media presentation, conversation.
Contrast what teacher is now doing with what he or she might do if using innovation.
Provide opportunity to visit a site where innovation is in use.

Stage 2:

Establish rapport, encourage and assure the teacher s/he can do it.
Clarify how innovation relates to other priorities.
Introduce innovation gradually.
Provide personal support through easy access to facilitator.

Stage 3:

Provide hands-on practice with innovation materials.
Provide classroom management and organizational tips.
Ask users to share successful and unsuccessful practices.
Establish buddy system/consulting pair or support group.

Stage 4:

Encourage and reinforce regularly.
Send written information about topics of interest.
Advertise the teacher's potential for sharing skills with others.
Send teachers to a conference or workshop on topic of interest and usefulness.
Provide training in classroom analysis techniques.

Stage 5:

Arrange a meeting for idea exchange.
Provide time and support on the school level for collaboration.
Facilitate training in organization development skills.
Use teacher to assist others in use of the innovation.

Stage 6:

Involve teacher as trainer.
Encourage and facilitate teacher to take action related to his or her concerns.
Provide resources to access other materials and encourage to pilot test other programs or ideas.

Much of our research has indicated that over the course of an implementation effort, concerns can change from (1) high Stages 0-2 before use begins, to

(2) high Stage 3 during first use, to (3) a decrease in the intensity of all concerns, as a Routine (IVA) Level of Use is established, and then a possible movement to (4) high Stages 4-6, which may emerge 2 to 3 years into the effort when use might move to Refinement levels. When concerns go largely unmet and questions unanswered, the flow of an implementation effort is stymied. Thus attention to these concerns in the game plan is essential. Where in this process inservice activities are discontinued depends on the goals of the effort.

Here is an example of inservice activities that were planned for an elementary science curriculum implementation effort according to what were predicted to be emerging concerns:

1. Stages 0-2, nonusers: Two months before the first inservice session, a "pre-inservice" meeting took place, combining teachers from two schools. Planned for one hour after school, the meeting included an overview by the district coordinator, a slide show on the new program, description of the inservice training schedule and content, distribution of the teacher's guide, and time for questions. All teachers and principals attended.
2. Stage 3, Mechanical Level of Use: Three full-day inservices were held, spread out over nine months. Each focused on units teachers were currently teaching and included hands-on experience in materials, equipment, procedures, demonstration of classroom management techniques, and open discussions of problems and solutions. Sessions were conducted in small groups by teachers experienced in using the program. Between inservices, a district resource teacher visited individual schools to provide specific assistance, helping teachers solve problems, rearranging storage closets, and demonstrating teaching techniques.

3. Stage 4-6: For those few teachers with impact concerns, inservice sessions contained time for optional activities. Some were management-related, but others were self-paced modules containing training or ideas for conducting more effective discussions, relating Piagetian concepts to science, and maximizing the use of the outdoors. After two years of use, a school-based improvement plan was implemented to encourage teacher analysis of science instruction and refinement of program use.

More information about this particular design is found in Pratt, Melle, Metzdorf and Loucks, 1980.

II. Game Planning Concerns-Based Activities

To add more complexity to inservice design, but also a great deal more rigor, one might actually map out the game plan for an implementation. As noted earlier in this paper, there are several intervention levels that must be considered in implementation design, and these might be used to delineate the kinds of actions that are to be taken as the implementation effort unfolds. Note that this is only a map, not a hard and fast, lock-step plan. Just as a cross-country traveler with a definite destination maps out alternate routes that may be made during the long journey, so a program planner may also change routes along the way. It is far more difficult to awake each morning to the question, "what next?"

There are many possible game plans. For example, one traditional game plan is the two-day, hit-and-run workshop where training and materials are delivered, and the trainer is never heard of again. Or, there is a non innovation-specific game plan, where teachers are run through a series of workshops to give them new, creative teaching ideas, again with no follow-up. Or, a currently popular game plan involves school-level "capacity-building", where all school staff

spend a year or more involved in the process of needs assessment, problem formulation and selection from alternative solutions. Materials are developed by the teachers, who use them with students.

Obviously the kind of game plan selected depends upon the philosophy, assumptions, and leadership style of those in decision-making positions. Based on concerns theory and CBAM assumptions, a concerns-based game plan has the following characteristics:

1. lasts 3 to 5 years from the first planning session;
2. structures all actions, activities and support around the emerging concerns of teachers and administrators, in order to resolve those concerns or arouse concerns at higher stages;
3. focuses on an innovation, although this may be broadly defined as any idea, process, product or program that requires new behaviors of potential users;
4. requires someone to be in a facilitator role(s), to design, structure, guide and monitor the implementation effort;
5. is pre-planned.

These few characteristics allow a great deal of leeway in designing an implementation effort. Options may include who is involved in making the adoption decision (federal mandate, district administrators, teachers, etc.), where the "innovation" comes from (internally or externally developed), who is in charge of facilitating (district person, principal, teachers), etc. All these decisions are part of the game planning effort.

III. Mapping a Concerns-Based Implementation: An Example

We've chosen a fairly simple situation to demonstrate how an implementation effort might be mapped.

Situation: A district with five elementary schools has low math scores throughout. Classroom data indicate that no consistent math program is in use. Teachers vary widely in objectives, materials, grouping patterns, testing and record-keeping. One teacher is selected from each school by the teachers in that school, and these five meet with the district math coordinator and one elementary principal. This math committee spends four months reviewing and visiting math programs then selects one that has been successful in a neighboring district. Because it was developed for a team teaching situation, and this district has only self-contained classrooms, certain of the management procedures (grouping and record-keeping) are adapted.

What is needed now is a game plan. As noted and defined earlier (p. 19), game plans may have six functional components:

Developing Supportive Organizational Arrangements

Training

Providing Consultation and Reinforcement

Monitoring and Evaluation

External Communication

Dissemination

For each component strategies may be developed; for each strategy, tactics; and for each tactic, incidents. Figure 9 depicts a framework for game planning by outlining intervention levels vertically, and time horizontally. Over time, concerns, use and configurations change predictably. By the second year of use of the program, however, it is nearly impossible to predict concerns and use, and their direct assessment is critical for planning. However, it is possible, particularly early in the effort, to plan the content of inservice, and allow content to be directly responsive to diagnostic data.

To be more concrete, Figure 10 provides a possible inservice design for the scenario described earlier. Strategies and tactics are detailed for four of the six game plan components. This does not mean that thought should not be given to the others early, especially to external communication. We have abbreviated our wording of strategies and tactics, so their intent is clearly com-

Figure 9:

Skeleton of a Concerns-Based Game Plan

		SoC 0,1,2 LoU 0,I,II IC _____	SoC 3 LoU III IC _____	SoC Flat LoU IVA IC _____	SoC 4,5,6 LoU IVB,V,VI IC _____
Game Plan Component 1: Developing Supportive Organizational Arrangements	Strategy(s) Tactic(s) Incident(s)				
Game Plan Component 2: Training	Strategy(s) Tactic(s) Incident(s)				
Game Plan Component 3: Providing Consultation and Reinforcement	Strategy(s) Tactic(s) Incident(s)				
Game Plan Component 4: Monitoring and Evaluation	Strategy(s) Tactic(s) Incident(s)				
Game Plan Component 5: External Communication	Strategy(s) Tactic(s) Incident(s)				
Game Plan Component 6: Dissemination	Strategy(s) Tactic(s) Incident(s)				

municated. And for want of space we have not specified incidents. In a less graphic, perhaps outline form, this might be done. For example:

GPC 2: Training
Strategy: Teachers receive training in materials and procedures
Tactic: Full day of training held for teachers
Incident: For one hour, teachers and inservice leaders discuss problems that have arisen and possible solutions.
Incident: For two hours inservice leaders guide teachers in a series of lessons in multiplication.
Incident: For two hours inservice leaders show a videotape and discuss management of individualized instruction.
Incident: For one hour materials are constructed for use in self-directed instruction.

Note that although this game planning appears quite rigorous, there are times when interventions do not quite "fit." For example, the math committee visits the pilot school and collects data there in order to make a final decision about adoption in other schools. These actions fall within at least two GPC's: 1 and 4. The use of a pilot test site is a GPC 1 strategy, but the presumed training of those teachers would fit in GPC 2.

This map is primarily a planning device. It points to activities that require funding, personnel, resources, timing, etc. The map may also be used as a communication device between facilitators, administrators, funding agency, teachers, school board, etc. We know of one proposal which used this schema that was written to a federal agency. Since it received funding, we suspect more such use will occur.

When in-depth planning is needed -- and that is always the case with individuals responsible for inservice -- then the coding schema discussed on page 23 is useful. Each tactic and incident -- for at those levels things really happen -- may be described in terms of source, target, function, medium, flow and location. In considering these dimensions for each intervention, it is possible to answer some important quesitons, such as:

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Figure 10

SAMPLE CONCERNS-BASED STAFF DEVELOPMENT GAME PLAN

		Year 1 Jan.	May	Aug.	Oct.	May	Year 2 Aug.	Oct.	May	Year 3 Aug.	Oct.	Year 4 March
CONCERNS	Pilot	0,1,2		3				?				?
	Other	0,1,2					3					

Game Plan Component 1: Developing Supportive Organizational Arrangements	Strategy: One school selected to pilot program before district decides to adopt	Tactic: Negotiations with teachers in schools result in one school volunteering to pilot program	Tactic: Overview session is held for pilot teachers	Tactic: Full day of training provided to pilot teachers	Tactic: Full day of training provided to pilot teachers	Tactic: Final adaptation of program made by Math Committee
	Strategy: Teachers are selected to conduct training for others & are given released time	Tactic: Math Committee members seek out and select teachers in pilot schools to serve as inservice leaders.				
	Strategy: Materials are provided by central office to each school	Tactic: Math Committee adopts materials which are finalized & assembled by central office.	Tactic: Materials and equipment are provided to teachers at overview training & are replenished throughout the year by central office.			
Game Plan Component 2: Training	Strategy: Teachers receive training in materials & procedures		Tactic: Overview session held for pilot teachers	Tactic: Full day of training held for pilot teachers	Tactic: Full day of training held for pilot teachers	Tactic: Overview held for other teachers
	Strategy: Teachers selected to provide training are trained in how to work with adults & group process techniques					Tactic: 3 days of training held for inservice leaders
Game Plan Component 3: Providing Consultation & Reinforcement	Strategy: Math coordinator is on call for school visits & consultation.	Tactic: Math coordinator takes call & responds to problems in schools over the phone. Tactic: Math coordinator visits schools when asked to provide assistance, consultation, problem solving.				
	Strategy: Math coordinator makes scheduled "comfort & caring" visits frequently to every school	Tactic: Twice a month, Math coordinator makes scheduled afternoon visit to each school to assist individual teachers and principal.				
Game Plan Component 4: Monitoring & Evaluation	Strategy: Periodically concerns of teachers are assessed and discussed by Math Committee	Tactic: SoCQ is given to teachers in all schools in April and September (Year 2), in May and September (Year 3), and in February and May (Year 4). Tactic: Math Committee meets each time SoCQ data are available to adjust plans.				
	Strategy: Math Committee visits pilot school during pilot & continues to meet to share data & impressions	Tactic: Each member of the Math Committee pays at least 2 visits to the pilot school between September and April. Tactic: During Math Committee meetings, data are shared about these visits.				
	Strategy: No summative data are collected until year 4					
Game Plan Component 5: External Communication						
Game Plan Component 6: Dissemination						

Game Plan Component 1: Developing Supportive Organizational Arrangements	Strategy: One school selected to pilot program before district decides to adopt	Tactic: Full day of training held for all teachers	Tactic: Half day of training held for all teachers	Tactic: Half day of training held for all teachers		
	Strategy: Teachers are selected to conduct training for others & are given released time	Tactic: Full day of training for inservice leaders				
	Strategy: Materials are provided by central office to each school					
Game Plan Component 2: Training	Strategy: Teachers receive training in materials & procedures	Tactic: Full day of training for other teachers	Tactic: Full day of training for other teachers			
	Strategy: Teachers selected to provide training are trained in how to work with adults & group process techniques					
Game Plan Component 3: Providing Consultation & Reinforcement	Strategy: Math coordinator is on call for school visits & consultation.					
	Strategy: Math coordinator makes scheduled "comfort & caring" visits frequently to every school					
Game Plan Component 4: Monitoring & Evaluation	Strategy: Periodically concerns of teachers are assessed and discussed by Math Committee					
	Strategy: Math Committee visits pilot school during pilot & continues to meet to share data & impressions					
	Strategy: No summative data are collected until year 4					
Game Plan Component 5: External Communication						
Game Plan Component 6: Dissemination						

1. Is the source always the same? should it be? e.g., do we overuse a district coordinator, outside consultants? underuse teachers, teacher center personnel?
2. Is the target always the same? should it be? are all possible targets targeted? e.g., do we always meet with teachers as a large group? are administrators ever targets?
3. Do we use a wide variety of functions? overuse training? underuse monitoring and evaluation, external communication?
4. Are there other media, other locations that may work better? e.g., have we considered taking teachers off the school site? using role playing, hands-on activities?

We believe that coding interventions has a highly creative function -- it makes us consider alternatives. It may be a useful group activity, calling upon some creative teachers and facilitators with a clear understanding of the change process to help implementation not only succeed, but also provide a reflective experience and opportunity for growth.

IV. Short Cuts

This extensive concerns-based game planning has the potential for providing the optimal opportunity for implementing successful staff development. We hope it is possible to extract smaller scale ideas from the larger example, particularly when time and resources are limited. Before providing some examples, we would strike a note of caution: don't set up unrealistic expectations. No two-year grant will ever change a reading program and increase achievement scores with any long-term effect. Likewise, no matter how good intentions are, no implementation effort will make it without a budget. It is necessary to be realistic. Take each "mandate" as a challenge, but be ready to say clearly when

it's merely an "impossible dream." Slowly -- very slowly -- we are adding to our list of district and higher level administrators those who are finally acknowledging that nothing happens over night, and who are willing to invest the necessary time and resources. One district has coined the term "priority inservices" to let schools know which new programs need to be the focus of current school efforts. Slowly, we may be decreasing the onslaught of expectations piled on today's teachers.

Here are some examples of using CBAM concepts in inservice when the full-fledged game planning is not possible:

1. When called upon to provide follow-up inservice in the first or second year of program use, facilitators we know give the teachers an open-ended concerns statement. After reading through and scoring these, either they, or the consultants they call upon, know "which bag to pack" for the inservice.
2. In one brand new open-space school where principal and staff were all newly assigned, the principal asked staff to write their concerns about the new building. Done prior to their first meeting together, and periodically over the first school year, these statements were used as grist for staff discussions of how they were feeling, how things were going, and how they might handle some of their problems.
3. An outside consultant asked to facilitate a retreat for a school staff requested ahead of time for concerns statements in two areas: (1) the program in focus, and (2) the school, or teaching, in general. This provided data for planning and helped anticipate problems.
4. One staff developer provides teachers who serve as inservice leaders, helping teachers, teacher leaders, or team leaders with training in Concerns and Levels of Use, and how to identify both through the one-

legged conference format. Thus, not only can peer leaders more directly understand what needs other teachers are expressing, they also have a common language in which to consult with each other and with district resource people.

Many more examples are possible, but we hope these help to show the range of ways CBAM concepts may assist inservice design and delivery.

How Is It Going?

A final application for CBAM concepts and tools is for monitoring the results of inservice activities. Have teachers' concerns changed? has there been a change in Level of Use? and have they made changes in the innovation itself? The actual tools for monitoring implementation were described early on. Note that those with the most "psychometric rigor," that is, those that are valid for evaluation and research purposes, are the Stages of Concern Questionnaire, the Levels of Use Interview, and Innovation Configuration Checklists. Other techniques, the Open-Ended Concerns Statement and "one-legged" conferences provide brief but good assessments. Before chcosing the tools to use, ask:

(1) What aspect(s) of teacher or innovation change am I interested in assessing?

(2) What degree of rigor is needed?

(3) How much time and expense do I have to invest in training and data collection?

(4) From how many people do I need to collect data?

Note that time and expense for training increase with increasing rigor. Also, when many (over 30) peoples' concerns are to be assessed, the SoC questionnaire is less time consuming to score than open-ended statements. The formal Level of

Use interview is more lengthy (20 minutes average) than a "one-legged" conference (5 minutes average).

The best design for monitoring implementation is longitudinal. As with any outcome measures, you don't know if you've succeeded if you don't know where people started. Assessing concerns, use and configurations may help you avoid training people in something they already know. It will also give you a baseline against which to compare later data. Monitoring may be as informal as spending a day in a school holding one-legged conferences with teachers, dropping into classrooms, and listening to teachers' lounge conversations. Or it may be as formal as running a set of questionnaires and interviews.

Figure 11 describes some guidelines suggested for any time any interviews are used. Figure 12 does the same for collecting written data.

When conducting interviews for Levels of Use and Innovation Configurations, and the population is too large to interview everyone, a sample of at least 10% (20% is better) may be selected. Although this sample may be random, it may be more worthwhile for it to be representative of grade levels, years of experience with the innovation, or certain types of schools. Again, this depends on for what you will use the data. Note that it is usually possible to collect concerns data from the entire population, since it is machine scorable, even in situations where use data must represent only a sample.

Here are some examples of the use of CBAM concepts and tools for monitoring implementation:

1. A National Diffusion Network State Facilitator sampled adopters of several innovations within the state, using Levels of Use Interviews and Innovatin Configuration Checklists. The results were shared with developers who would be making follow-up visits, and with school administrators, who could give targeted on-site assistance.

Figure 11:

Guidelines for Interviewing

1. Before the interview

   (1) arrange a convenient time with the teacher
   (2) arrange a comfortable, nondistractive place for the interview

2. Beginning the interview

   (1) establish a casual informality by chatting before beginning the interview
   (2) describe why you are interviewing
   (3) respond to any questions from the teacher

3. Conducting the interview

   (1) use open-ended questions whenever possible
   (2) use wait time after asking each question
   (3) concentrate on what the teacher is doing
   (4) focus on the use of the innovation by the teacher, not the teacher and others (beware of the teacher using "we")
   (5) focus on what s/he is doing now
   (6) use the branching technique
   (7) probe for information from the LoU categories
   (8) find out about change in use and why changes were made or may be made
   (9) if the interview gets off the track, politely say, "I'd be interested in hearing about that later" and go on to a more focused question

4. Completing the interview

   (1) ask the interviewee to add anything he/she has to say about the innovation that you have not asked about
   (2) of course, show your appreciation for the interviewee's time with you.

Telephoning

Taping

Figure 12:

Guidelines for Collecting Written Data
(SoC Questionnaire and/or Open Ended Statements)

1. Be sure teachers know what data are to be used for, and who will see the results.

2. Be sure it is clear what the "innovation" is.

3. Provide enough time for completion: 15-20 minutes in a faculty meeting or several days if mailed or delivered in another way.

4. If you are not taking names, but would like to be able to either match written with interview data, or match data collected several times, ask the teachers for an I.D. number. We use the last four digits of the social security number.

5. If confidentiality is an issue, provide an envelope they can put the written data in and seal before turning in.

6. A sure way to increase return rates is to distribute questionnaires a week before an interview is scheduled, and to collect the questionnaire at that time.

2. A large school district developed a configuration checklist for a science program and trained principals to use it. It included both interview and observation techniques. Science department consultants then provided specific assistance called for by principals.
3. Several schools implementing an Arts in Education program collected concerns data from teachers twice a year. Principals and school art coordinators met together with state department facilitators to plan next steps based on questionnaire data.
4. Teachers in a school implementing a cooperative grouping system helped the evaluator develop a configuration checklist. Data collected were used to clarify teacher needs and communicate these to staff developers.

Completing the Cycle

In the examples just provided, note that the use of CBAM concepts and tools for monitoring implementation is followed by utilization of the results obtained. CBAM data provide staff developers with formal or informal feedback to become new input for designing and delivering another round of concerns-based inservice.

Thus, as this presentation and discussion of a concerns-based model for inservice has pointed out, the model can aid in the clear articulation of goals for the inservice training. The model provides a framework for the design of the inservice activities and, once delivered, provides the tools for evaluating the effects of those activities. Finally, including CBAM evaluation data in feedback loops provides the mechanism for the cycle to begin anew.

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