

Training the Total Organization

Collective training is a new approach that focuses on "the big picture" rather than on training for individual employees.

Collective training may revolutionize the way we analyze industrial and business performance. Rather than defining an organization as an aggregation of individuals performing discrete functions, collective training views the individual as part of the organizational whole and works from there. The result is a dynamic analysis, and training that is designed to attain the "big picture" of an organization's goals.

Collective training evolved from the U.S. Army's "training revolution" of the 1970s and is now making its way into industry. The Army, influenced by Deterline, Mager, and Harless, had invested time and resources in the Instructional Systems Design (ISD) approach to training, but certain units performed poorly in training exercises nonetheless.

After a great deal of soul-searching, the Army concluded that despite all the educational technology applied over a decade, its troops were poorly trained. There were, of course, plenty of theories to explain this, but in the end, one conclusion was clear: The

By Vernon Humphrey

Army had borrowed its educational technology from industry and the academic world, but there was no adequate model in industry or academia for a ground combat force. The classic approaches either weren't working or weren't having the effect they should have had.

Ultimately, that led the Army to ask the fundamental question—"What are we trying to do with our training, anyway?"

The answer was surprising—the Army was trying to produce *organizations* that could respond rapidly under pressure, adapt quickly to changing conditions, and capitalize on opportunities. No wonder training approaches that focused entirely on individuals produced less than satisfactory results.

This new definition of the problem resulted in a new way of looking at training problems and a new approach to solutions. The new approach, called "collective training," has matured to the point where it can now serve as a model for looking at industry and business.

Not just training individuals

You might ask: "Isn't collective training really just a matter of training

individuals?" To understand the answer to that question, look at your arm. What do you call that five-fingered thing attached to your wrist?

You call it a "hand," of course. Why don't you call it a "collection of individual cells?" Would that be wrong?

The Differences

Collective training differs from conventional or traditional approaches in five ways:

It trains the entire organization, not just the individual worker or other small elements of the organization.

It directs the firm's organizational behavior toward organizational goals instead of toward individual goals.

It occurs at an echelon above the individual training level, for both analysis and execution.

It subordinates individual training to collective performance.

It directly involves all managers and supervisors in training.

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Strictly speaking, no.

But if you're in the business of training computer repair technicians, it certainly would be wrong. Imagine telling a trainee, "Send a signal along that nerve to cause those muscles to contract!"

Until you understand the concept of "hand," you are severely handicapped as a trainer. You cannot understand such concepts as "hand-eye coordination" and you're going to have little luck in training your computer repair technicians.

If collective training isn't just train-

ing individuals, what is it? We need to come up with a handy definition of this new training field:

- Collective means "organization," especially a complex organization.
- Training is education—teaching and learning.
- Learning is a permanent change in behavior.
- Collective training is changing the behavior of complex organizations.

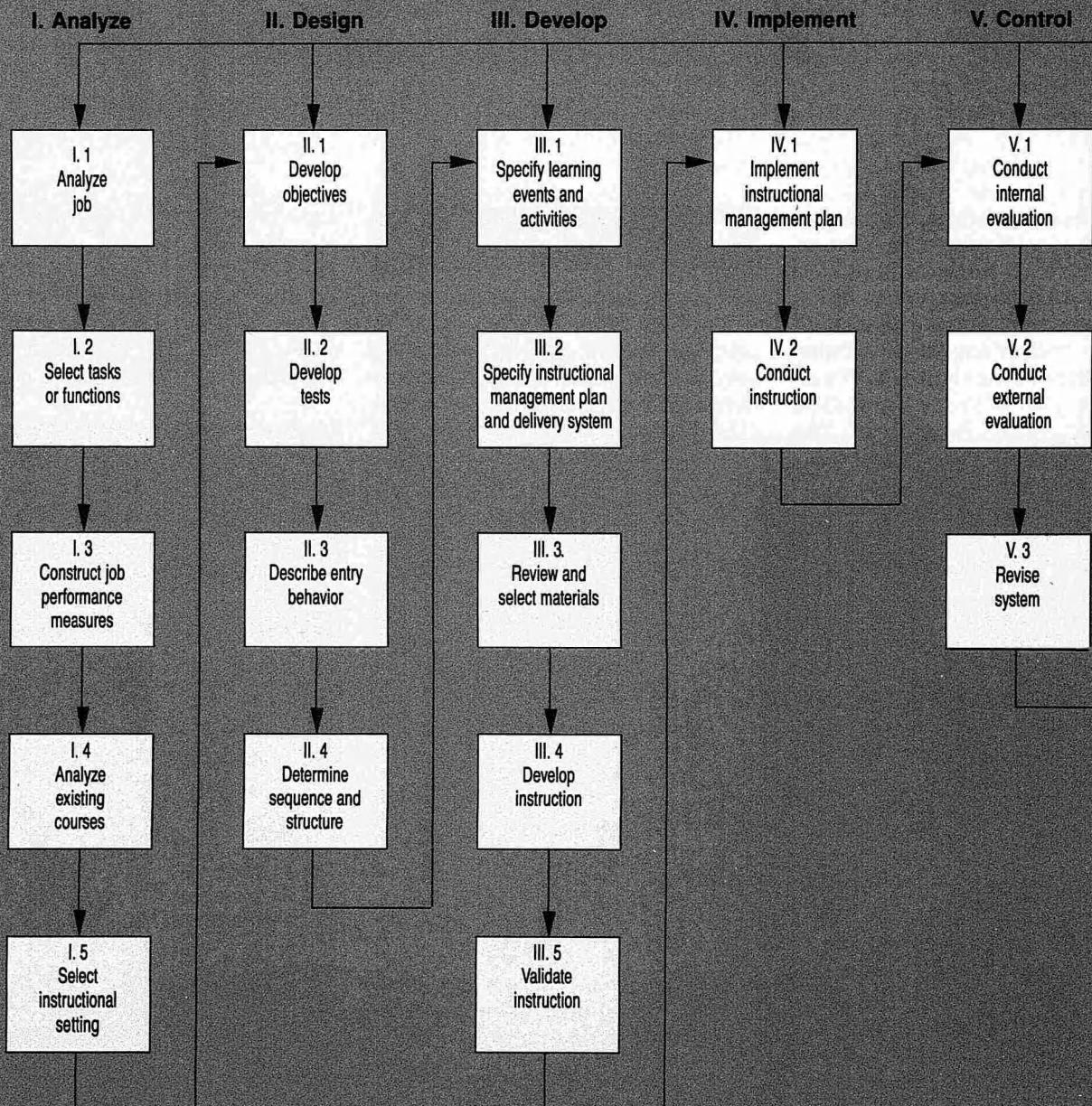
Collective training, therefore, is training that addresses the organization, rather than the individual. To

understand it, let's take a look at the individual-oriented Instructional Systems Design (ISD) model. As Figure 1 illustrates, the ISD model consists of five phases: analysis, design, development, implementation, and control.

There's nothing inherently wrong with that—but look at the individual blocks. Take Block I.1, for example—"Analyze job." Where did this job come from? Why should anyone do this job? Why should we care?

The job came from the organization. No organization, no job! It's that

Figure 1—The Instructional Systems Design (ISD) Model



simple. You cannot effectively analyze the job until you have analyzed the organization that the job was created to serve.

Now let's look at the Collective Training (CT) model in Figure 2. It looks a great deal like the ISD model, but it is an echelon above ISD, because it doesn't focus on the individual.

The major difference is that the CT model begins with an analysis of the organization, and completes that analysis before proceeding with the

design or development phase. Note also that the model provides input to the individual training analysis. In fact, without this input, the individual training analysis cannot be valid. Once the analysis is complete, training is developed to bring each subordinate element's activities into line with the organization's goals and objectives.

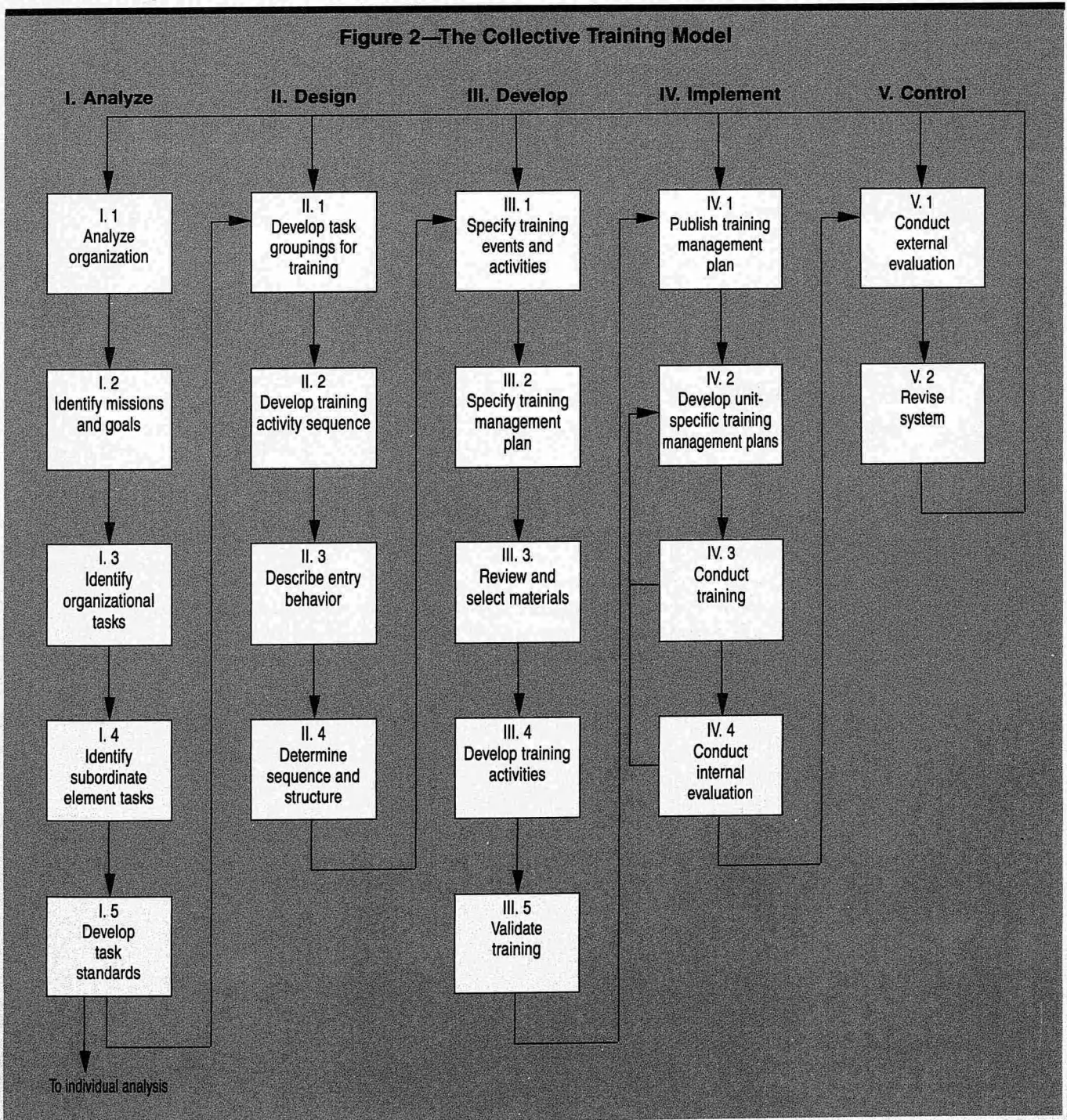
Note that while collective training involves individual training, individual training is clearly subordinate. In other words, individuals are

trained to play their roles in the collective task. In fact, a great deal of "individual training" is conducted in the course of collective performance because many functions traditionally viewed as individual tasks are actually parts of indivisible collective tasks.

In order to understand collective training, we must understand how collective trainers look at organizations. Every organization has six components:

- goals and objectives

Figure 2—The Collective Training Model



- structure
- personnel
- equipment and facilities.
- procedures
- resources.

Goals (overall purposes) and objectives (approaches to achieving goals) are the foundation of any organization. They define the organization's reasons for existence and its general approach to business.

Structure is the organization's framework, and determines how its physical parts relate to each other. Although most of us believe that the organization chart shows the structure of an organization, that is rarely the case in practice.

One of the training analyst's most difficult tasks is to determine the real structure of the organization. A shop steward may have as much or more

blood. Resources include money, inventory, time, skills, and so on.

Changing an organization's behavior

An organization may be as small as two people. But if we concentrate on such small, simple organizations, we will miss the key to collective training, which focuses on much larger groups than normally considered by traditional training approaches.

To understand this, let's examine a hypothetical example. The XYZ computer company had repair technicians at each sales outlet until a recent reorganization created "service centers" separate from the stores. Some complaints then began to surface about the reliability of XYZ computers. Sales have fallen off. An in-

complaining about XYZ Computers. Clearly, individual training of repair technicians isn't the answer here. And unfortunately, changing back to the old system would be too costly. What we need to do is change the organizational behavior.

We first raise our focus to a regional level and examine the total organization under the control of the regional director. This is the person to whom both the store managers and the service-center managers report. We then establish goals for the region. Clearly, these goals can only be achieved through a cooperative effort by the stores and service centers. We now must define the roles of the stores and service centers in achieving the regional goals.

Falling into the trap

As this example illustrates, the first step in collective training is to analyze carefully the entire organization. The collective training analyst will often draw an organization chart for each objective, showing the relationships among the parts necessary to accomplish that specific objective. The analyst can then understand how the organization's structure, personnel, procedures, equipment and facilities, and resources can best be employed to achieve the goals and objectives.

Although a collective analysis can be highly complex, it basically asks two questions:

- What was this organization created to do?
- How does it do that?

Notice the "it" in the second question. When you begin to ask, "How does he or she do that?" you're not doing collective analysis anymore. Even the best analysts fall into the trap of reducing the question to one of individual analysis.

The trap can be insidious—you may find tasks expressed in ways such as this: "the production team develops a plan . . ." That's just another form of the trap. The production team doesn't develop the plan, the production manager does. That's an individual task, not a collective task. You must thoroughly develop the collective task hierarchy before going into the individual task analysis. If you don't, you will produce a loose collection of individual tasks that won't accomplish the organization's objectives, no matter how well the individuals perform.

Most of us believe that the organization chart shows the structure of a firm; that is rarely the case in practice

power than a first-line supervisor, but may not be shown on the organization chart. A manager may be unable to react to changing situations because of limitations imposed by staff agencies. And a high-level boss will frequently ignore the chain of command and go directly to a subordinate several levels down on the organization chart, bypassing the person's intermediate supervisors. All too frequently, the organization chart is either out of date or depicts the organization as imagined by the person who drew it up.

Personnel is number three on the list for a simple reason: without goals and objectives, and without structure, there can be no organization—merely a mob.

Facilities and equipment are the tools the organization uses to accomplish its purposes.

Procedures tie personnel, equipment, and facilities together. They are, in effect, the "motor memory" of the organization.

Resources are the organization's

investigation revealed that when a computer is brought into one of the new service centers, the repair technician only fixes what is written up on the ticket, without running the full diagnostic program or performing preventive maintenance services.

Training the repair technicians in how to run the diagnostics would be a waste of time and resources—they already know how. They used to do it when they worked at the stores. The problem lies in the reorganization and the goals assigned to the stores and the service centers.

The supervisors at the old stores were concerned with repeat and follow-on sales. Good service and high reliability were essential to their sales strategy—even if they lost a little money on the service end. But the service-center managers have to make money on service. They don't get paid for checking things that the customer hasn't complained about and that probably aren't broken—yet.

No wonder people have begun

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Watch out for Type B elements

Asking the basic questions can also help you distinguish between the two types of subordinate units in each organization. Collective training analysts call them Types A and B.

Type A elements are "line" or production units. They usually have a similar structure all the way down, with multiple, identical subordinate units. Type A units are concerned with directly meeting organizational objectives. They are easy to analyze. When you have determined what the organization as a whole was created to do and how it does that, you can proceed by asking the same two basic questions of each Type A element, all the way down, until you legitimately reach the individual level.

Type B elements are staff or support units, such as the personnel department or the accounting department. They support the organization's goals indirectly. Type B elements are usually one of a kind, and may indirectly control similar cells in lower units. They also often have power to establish con-

trols or procedures that facilitate or impede the ability of other elements to meet organizational goals. Because they are not directly involved in the primary business of the overall organization, Type B elements often tend to define their roles in their own terms.

Line departments often complain that staff elements place unreasonable burdens on them. They say that they never get the same responsiveness from the staff departments as the staff departments expect from the line. They accuse the staff departments of resisting changes that would benefit the organization as a whole, because of the potential impact on their own departments. A good collective analysis can correct such problems—at least partially—by identifying what the staff departments must do to support the overall organizational goals.

Simulations for analysis and training

To understand this better, consider one of the first applications of collective training in an industrial setting.

The ABC Company had two major line divisions (Type A), chemicals and textiles. The company was losing money, and the chemicals division was pinpointed as the culprit. Various management controls and cost-cutting measures proved ineffective and the company decided to sell the division. There were no immediate offers.

The CEO decided to conduct a staff training exercise. He directed managers from both divisions and all staff elements to bring the company's overall operations up to a specified profit level. No matter how well a particular operation did, it would be unsatisfactory if the company as a whole did not reach the target profit level.

Various approaches were tried on the first day, but none worked. On the second day, a junior clerk in the accounting department (Type B) offered a tentative suggestion—the textiles division used large quantities of chemicals, reimbursing the chemicals division at cost. Suppose the chemicals division was reimbursed at fair market value?

The profit picture changed dramatically. Now the chemicals division was in the black and the textiles division ran a deficit. Simulated cost-cutting actions were applied to the textiles division, and by the end of the simulation the group had reached the

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specified profit level.

Follow-up training sessions and simulations were conducted to refine procedures and teach staff and management at all levels the new techniques. The results exceeded expectations, and both production divisions of the company were soon showing a healthy profit.

Ironically, the junior clerk had made that key suggestion several times over the preceding two years. Each time, she was turned away because it would be "too disruptive," it didn't "accord with policy," or the accounting department "already had more work than it could handle." In other words, the accounting department, a Type B element, had defined its role in its own terms to the detriment of the corporation. It analyzed the suggestion in terms of its negative impact on itself, not in terms of its possible benefit for the company.

But the collective training analyst examined the accounting department in the context of the overall organization, asking a variant of the first key question: "What was this element created to do for the organization?" Then the junior clerk finally found someone willing to listen and appreciate the potential of her suggestion.

Failure to understand the differences between Type A and Type B units can warp the collective analysis. The following rules will help the analyst deal with organizational types:

- Separate the organization into the two types of units.
- Analyze Type A first.
- Revise the basic questions for Type B elements—"What was this element created to do for the organization?" and "How does it do that when the organization does...?"

Finding holes in procedures

The collective analysis produces a hierarchical list of tasks down to the individual level that support each organizational goal and objective. It pinpoints who, collectively or individually, must perform each task, and it establishes standards for each task. A detailed analysis of the organization's facilities and equipment and its established procedures determines how the task is done or how it ought to be done.

Collective analysis also identifies tasks that are essential to the organization's objectives but not clearly

addressed in existing policy and procedure. It pinpoints tasks performed improperly, too slowly, or incorrectly.

For example, in the PDQ Company, line managers were required to make up monthly budgets and remain within plus or minus 5 percent of target. But some expenses, such as costs for centrally requisitioned supplies, were beyond the line managers' control. And they didn't get confirma-

tion of supply costs until three or four months after the supplies were purchased. When training analysts linked those two tasks, "Manage Monthly Budget" and "Provide Cost Information on Supplies Purchased," the hole between accounting procedures and line management needs was obvious.

The "individual" task, Manage Monthly Budget, was actually part of a larger collective task. No amount of individual training would enable the

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line managers to perform their part of the task without coordinating their work with the accounting department to achieve the collective goal.

Continual training

Managing the training is crucial. There are actually two plans for this phase, one describing the training management strategy for the entire organization, and a second, specific to each unit, that managers at all levels use to ensure that training supports and is synchronized with the organization's overall plan.

Each unit-specific training management plan follows a cycle that allows line managers to adjust and refine their plans to meet the needs of the organization. This creates a cycle-within-a-cycle, as shown by blocks IV.2, IV.3, and IV.4 of the collective training model (Figure 2).

In the planning phase, the training managers select the most important organizational goals or objectives. Then they determine the organizational tasks that contribute to those goals or objectives. In the resource phase, the time, facilities, and other

training needs are programmed. In the training phase, the plan is implemented.

But collective training is not a one-time project—it is an ongoing process. All three phases are conducted simultaneously; some training is being carried out while future training is being planned. Continuous evaluation of training and performance allows continuous updating of training plans. When training progresses more rapidly than expected, the training schedule is speeded up. When unexpected problems occur, plans are adjusted accordingly.

All trainers recognize that time is one of the most critical problems in training. One solution to the problem is backward planning—determining when culminating events must take place, and then working backward in time to schedule the preliminary events. A second technique is the use of unscheduled training.

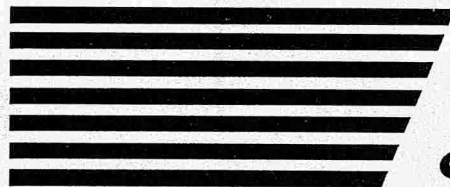
In any given day or week there will be a certain amount of "slack time," when the press of work abates and nothing much happens. The problem is, we don't usually know ahead of

time when slack time will occur, so we can't take advantage of it for training.

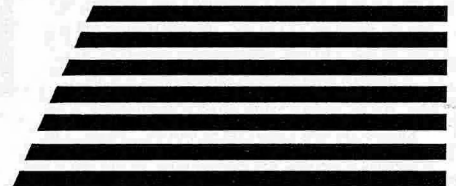
With unscheduled training, we simply assign a training responsibility (for example, requiring warehouse supervisors to conduct training in a new stock-locating systems) and a time frame (a week or a month). The supervisor conducts the training during slack time, whenever it may occur. Performance sampling provides quality control of unscheduled training.

Of course, the training might not be accomplished if unexpected work interferes. That happens from time to time in any organization. Supervisors at all levels should hold periodic meetings to assess training progress. If a supervisor has been unable to conduct unscheduled training, the training plan is adjusted accordingly.

The participants themselves analyze the training. Encourage each person to state his or her role in the activity, explain how that role relates to the organization's goals, and suggest how the organization's performance could be improved. This "milking" of the training is an essential part of the collective training process. ■



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