HRD and Productivity: Allied Forces

By Leonard Nadler

American industry's current concern with productivity certainly is understandable. But too many people are using the word, and too few are bothering to define it.

The same is true of the term "human resource development," or "HRD." When the term first became popular in the late sixties, people heard it, but there wasn't much impact. As we moved through the seventies, more people were using the term, but without bothering to find out how it was defined.

There has been a great deal said and written using both terms—the result being confusion. If we are to have a meaningful dialogue on these issues, we first must define the the terms we use to describe them. I'm not suggesting that everybody will agree with these definitions, but by making them specific, we can see whether we do agree and the extent of our agreement or lack of it.

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"Speed-ups" in productivity can have negative long-range costs.

Productivity

The major confusion in discussing *productivity*, is that it is too often used interchangeably with *production*. These are two very different concepts, as illustrated in Figure 1. The basic concept of production is that there are inputs, shown by the arrow on the left side of the figure. This produces outputs, as depicted by the arrow on the right.

Suppose you want to increase production. You can accomplish this simply and directly by introducing the necessary additional inputs, as shown by Figure 2. Of course, there is no guarantee that additional input will produce an equivalent output. For example, the additional input may be additional worker hours. When working overtime, however, the rate of production per worker may be lower due to fatigue and similar elements.

The major difference between production and productivity is that to increase productivity, you do *not* make an additional input. Instead, you try to increase the output without making any additional inputs, as shown in Figure 3. I know: It sounds like I'm talking about magic or statistical manipulation. And the way some people approach productivity, there is a measure of both. But there are more rational approaches.

Productivity improvement

So how can you accomplish an increase in productivity? The clue lies in the box between the arrows. Called the "workplace," this area encompasses a broad range of factors.

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In some situations you can increase productivity through a practice labeled the *speed-up*: The worker is required to produce more units per hour. This was depicted by Lucille Ball and Vivian Vance in the classic "candy factory" episode of "I Love Lucy." What happens during a speed-up is that the order is given for each worker to produce more, and the machinery is geared to go faster—increase output—without any adjustment in wages. If it works this can reduce unit cost and raise productivity, but the long range cost to the organization can be extremely negative.

There are many similar practices that benefit the company but burden the workers. The result is that the workforce learns to consider productivity as just another name for increased exploitation. This need not be the case. There are many areas where management and workers can act together to increase productivity while benefiting everyone.

One good way to increase productivity is through capital investment. Take the U.S. steel industry for example. This industry has been criticized for its low productivity and, as a result, has great difficulty in competing in the world market, particularly against Japanese and German steel.

One major cause of low productivity in the U.S. steel business is that there has been very little capital investment in that industry over the last 50 years. Many of the plants are using equipment that is even older than that. With such outmoded equipment, it is impossible to increase productivity. On the other hand, because Japanese and German steel mills were virtually destroyed by allied bombing during World War II, they had to be almost totally rebuilt and supplied with new equipment.

I'm not suggesting that we need a war in order to replace equipment, though workers who must use outmoded equipment sometimes feel that it would take a bomb to wake up management. The "bomb" can be a loss of market or a profit-and-loss statement dripping red ink.

Philosophy of the organization

When introducing productivity improvements, it is important to consider the philosophy of the organization. There has been increased attention to this item, as more and more organizations are developing company philosophies, particularly those in writing.

The philosophy of the CEO or the owner usually gives small organizations their direction. In large organizations management may draft a statement for public relations purposes, and this statement may or may not reflect the reality of the philosophy of the organization.

Sometimes it is good to look at policy statements rather than statements of philosophy. Policy statements usually are based on an agreed-upon philosophy and, in fact, may be more representative of the company's philosophy than a PR piece would be.

Let me share an example from my own organization. I am a regular member of the faculty of a university, and some years ago concerns about productivity were raised. I made the following suggestions. To understand this example, you should know that in most universities there are three levels of academic faculty: professor, associate professor, and assistant professor. The salaries are also in that descending order.

In the philosophy of the academic organization, the professor is supposed to be the more experienced and renowned and works with small groups of graduates or upper-level students in seminars and similar learning situations. At the other end of the spectrum is the assistant professor, who is just starting out. It is customary that the assistant professor will teach the large lecture courses. This practice reflects a generally unstated philosophy.

To increase productivity the university suggested that each professor be rated in terms of salary (input) and student hours generated (output). To increase the productivity of a faculty member, the input would remain the same but the output would have to be increased; in other words, more students per faculty member. This, at first, might seem a logical approach.

Note, however, what happens. The full professor, at the higher, level of the salary scale must have more students than the assistant professor. This is a contradiction of unstated university philosophy. Those productivity efforts have been abandoned though the search continues to find some logical productivity approach that is consistent with organizational philosophy.

Figure 1—Production

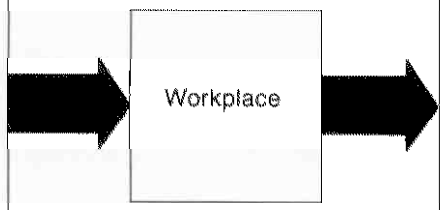

Figure 2—To increase production

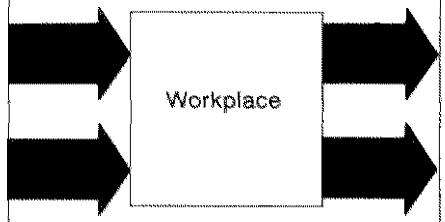

Figure 3—To increase productivity

Training in organizational effectiveness focuses on helping trainees understand what organizations are, why they exist, and how to deal with their social realities. With this understanding, trainees can then analyze the organizational culture—its values and modes of operation. The last part of the training deals with skills that make employees fully functioning members of the organization—interpersonal, communications, and group dynamics skills.

Organizational skills are the building blocks for leadership. In the organization's power structure, an employee becomes a leader either by virtue of authority and title or by cultivating the respect of peers, projecting a sense of reliability, being goal-oriented, and demonstrating vision.

Basically, leadership means that a person can influence others to act in certain ways. At times it is necessary to influence co-workers and work groups and to provide a vision of what the organization or a specific task requires. Skillful leadership is needed at every level of the organization, from the CEO to the line worker.

Training issues for leadership include understanding the organization's strategies and tactics for achieving goals; leadership as an exchange process between leaders and followers; approaches for the task-centered leader; strategies for sound decision-making; developing and communicating a vision; influencing the behavior of others; and the importance of projecting emotional stability.

A functional approach to training

The accompanying figure describes eight steps, from assessment to evaluation, for training workplace basics.

An excellent example of this blueprint for success at work is Mazda Motor Manufacturing (USA) Corporation (MMUC), whose 1986 sales topped $10 billion. Producing automobiles since 1931, the Japanese automobile manufacturer owns several plants in Japan and in the fall of 1987 opened its first U.S. operation in Flat Rock, Michigan.

When the Flat Rock plant opened, Mazda had already prepared a detailed training plan for *every* employee. Phase I of its plan focused on basic workplace skills for the immediate start-up of the plant. The plan included courses in company orientation, Japanese life, job-specific, off-line training, and on-the-job training. Also included were "common" training courses in such subjects as *kaizen* (constant improvement), group processes, problem-solving and decision-making, safety and health, creative thinking, interpersonal skills, and statistical process control. Each employee's common training track comprised varying combinations of those courses.

The following describes how Mazda followed each step of the blueprint for success.

Step I: Identifying Job Changes or Problems. Because Flat Rock was a new plant, no problems or job changes had taken place. But to avoid possible future problems, the company took a proactive stance. From the outset, Mazda began educating new employees in its corporate culture through an effective, comprehensive training program.

With the cooperation of training and development staff, department managers, the labor relations department,

Blueprint for success

Step I: **Identify Job Changes or Problems Related to Basic Workplace Skills**
- Assess the extent of the need for training due to job changes or problems
- Form a company-wide representative advisory committee
- Perform a job analysis for selected jobs
- Document employee performance deficiencies on the selected jobs
- Identify target population for training
- Build cooperation with unions

Step II: **Build Management and Union Support to Develop and Implement Training Programs in Workplace Basics**
- Make the case for skills training programs in workplace basics
- Build support for skills training programs in workplace basics

Step III: **Present Strategy Plan to Management and Unions for Approval**
- Present the strategy plan for training
- Select a training program architect:
  In-house staff vs. external providers

Step IV: **Perform a Task Analysis of Each Selected Job or Job Family**
- Perform a task analysis
- Determine whether to select a quick route through task analysis, and which process is most appropriate
- Review the generic elements of the task analysis processes

Step V: **Design the Curriculum**
- Design performance-based, functional-context instructional program
- Design evaluation system
- Design documentation and record keeping system
- Obtain final budget approval to implement program

Step VI: **Develop the Curriculum**
- Prepare the instructional format
- Select instructional techniques
- Select training site and designate equipment requirements
- Develop evaluation and monitoring instruments

Step VII: **Implement the Training Program**
- Select and train the instructional staff
- Develop a training contract—yes or no?
- Pilot test (optional)

Step VIII: **Evaluate and Monitor the Training Program**
- Carry out initial evaluation
- Begin on-going program monitoring
- Connect back to management

the personnel administration department, and Japanese advisors, the company concurrently performed job and task analyses of each position, breaking them down into major tasks. Interviews with managers, executives, and Japanese advisors indicated a need for training in "hard" skills, though they considered "soft" skills essential to enhance both the individual and the organizational culture. The latter skills include mutual respect among coworkers, constant improvements in production, open communications, pride, caring, and putting forth extra effort.

Step II: Building Management and Union Support. Mazda's top management has been involved throughout the development and implementation of programs. Supervisors have training and coaching roles and take responsibility for the development of employees in their areas.

Organized coalitions maintain ongoing support for programs, and a steering committee helps develop training plans and keeps the departmental members involved, giving them ownership in the training. Training coordinators help implement training, and instructor leadership groups attend to the content and structure of particular programs. The employees' newly established union will provide a training representative to assist and advise on programs.

Step III: Presenting the Strategy Plan. Though final approval for the program came from Mazda executives, the active support and commitment of management was crucial. Each manager contributed to, and received a copy of, the plan and an analysis of cost estimates and recommendations for facilities and equipment, implementation time, and staffing. After making final revisions to the plan, executives approved it and distributed the final copy to the managers. From that point on, managers and program planners maintained close contact.

Step IV: Performing a Task Analysis. As mentioned, Mazda conducted task and job analyses during Step I. At this point in the plan, a shorter follow-up analysis using Step I procedures provided additional detail for the curriculum design.

Step V: Designing the Curriculum. Mazda's technical, job-specific training is performance-based and uses established performance objectives to measure success. A production engineering group developed criterion-referenced standards, and instructors then developed tests from these standards to assess competency in each objective. Objectives for training in skills such as teambuilding, interpersonal relations, and problem-solving were set by instructors.

Mazda's emphasis is on training in a functional context—that is, job-specific training. To this end, Mazda incorporates as much job- or industry-relevant material into course texts as possible.

The total budget for start-up training was $43 million. The early decision to provide training precluded the need for a specific operational budget. Although management support was firm, the case for the large budget included $19 million in state funds.

Step VI: Developing the Curriculum. To develop the initial curriculum, Mazda's training and development department used both internal and external providers, often pairing instructional design experts with technical experts. Using a request-for-proposal system, Mazda

identified the best providers according to such criteria as price, content flexibility, follow-up, and ability to run evaluation pilot programs.

Currently, Mazda's training uses a variety of instructional techniques such as interactive instruction and role-playing, behavior-modeling, and videotaping. Within three years, Mazda plans to include computer-based training and self-paced learning centers in its curriculum.

Step VII: Implementing the Program. Four corporate-level trainers, 325 employees with various technical expertises, and 18 external instructors deliver the training. Outside trainers receive train-the-trainer instruction, which emphasizes content. In-house content experts with operation experience serve as temporary trainers; they take a train-the-trainer course that focuses on the training process.

Supervisors help each employee develop a training plan and provide on-the-job coaching. Employees (with their supervisors) create their own employee development plans, in which they identify skills needed for future development, for the present job, for both personal and job growth, and for becoming a multi-skilled employee and individual.

In addition to coaching by supervisors, Mazda uses a formal employee assistance program, with two EAP representatives—one union-appointed and one from the company.

Mazda piloted its Phase I training to kick off the new programs. It allowed the training and development staff to identify logistical and delivery problems, and marketed the program to employees.

Step VIII: Evaluating the Program. Measures to evaluate presentations and instructors included employee reaction sheets, classroom observation, and participant interviews. But Mazda is currently developing a comprehensive, formal process to assess the programs' impact on the organization.

At six- and nine-month intervals following training, the evaluation process will determine how new hires use skills and how the company benefits from their performance. Also, the training department will maintain close contact with each participant's manager and supervisor to track post-training progress. Phase II training will continue this training plan for upgrading employees on the job and for training new workers.

Final results

Today, basic skills in the workplace —taken for granted in simpler times— is becoming a crucial issue for many companies. In a world of new technology and changing demographics, many organizations (like Mazda) find that in order to get the best out of the available workforce—and the best out of their marketplace—they must create job-specific, basic skills training programs.

Training in workplace basics is just one of the many issues facing organizations in the next decade. In the November issue of *Training & Development Journal*, the ASTD/Department of Labor project will discuss some of its findings in an article on technical and skills training. The December issue will feature results on the project's management development studies.