

THE TECHNOLOGY OF EFFECTIVE MANAGEMENT TRAINING

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ABRIDGMENT

•A COMPREHENSIVE project is being conducted to research and develop a curriculum for highway maintenance managers. An essential part of curriculum research concerns the technology of effective management training, i.e., the selection of appropriate training methods and the identification of ways to increase training effectiveness. For this research, a survey was taken of the state highway departments and 128 industrial firms and military agencies. Letters, questionnaires, structured on-site interviews, and samples of management training materials have provided data for the design of a curriculum.

An analysis of questionnaire replies and sample training materials indicates that most highway departments do not provide formal management training for their maintenance supervisors. By contrast, the typical industrial manager is being trained with materials and techniques designed to increase his capability to benefit from training. More than 70 percent of the industrial firms that were surveyed use programmed instructional materials, and slightly more than 50 percent conduct management seminars. Eighty-five percent of the firms regularly use three or more techniques; 41 percent use five or more methods, including programmed instruction, seminars, role playing, case studies, and management workshops.

TRAINING PRINCIPLES

An analysis of the most effective training materials and techniques indicates that several principles are applicable to training in highway departments:

1. Management training materials must communicate to supervisors the ways in which work is to be done. For example, if work schedules are to be prepared in a certain way or if work is to be controlled by a given procedure, the training materials must say so—loud and clear.
2. The subject matter for training should be limited to that which supervisors need in order to perform their jobs. The use of unnecessary materials impairs the effectiveness of any training program.
3. The subject matter for training must have the approval and support of top management. Much of the long-term effectiveness of training depends on the extent to which top management officials encourage their supervisors to apply the training to everyday decisions and tasks.
4. Training materials must be tailored to accommodate the management practices of the organization and to meet the learning characteristics of the persons being trained. The variations in management techniques and learning characteristics indicate that training should be designed to meet the separate needs of each level of maintenance management.
5. The purpose of training is to improve job performance. Therefore, the effectiveness of training should be determined before it is used. An evaluation of training effectiveness should begin with trial-run measurements of gains in knowledge, skills, and abilities that enable supervisors to improve performance.

SURVEY CONCLUSIONS

One of the most obvious conclusions was that training effectiveness can be increased by using appropriate instructional methods. The technology is such that almost any technique can be adopted to suit the needs of maintenance agencies. The real task, then, is to isolate the techniques or combinations of techniques that will contribute optimally to the supervisors' understanding of the subject matter. The use of programmed instructional materials is a very effective method.

Significant advancements also are being made in instructional media. A wide variety of visual aids and equipment is available. Here again, the task is to isolate the media that facilitate the learning process.

Another task is to increase the rewards associated with successful learning. Training is rewarding when the benefits are obvious. It is rewarding when it enables a supervisor to do his job in ways that lead to increased responsibilities and salaries. At the same time, it is necessary to reduce apprehensions associated with past learning experiences—apprehensions related to teachers, textbooks, and grading systems.

Finally, efforts should be made to broaden the scope of management training in state highway departments. The differences between state highway departments and industrial organizations—in terms of their training programs—suggest that more work needs to be done to implement formal training programs for all levels of maintenance engineers and supervisors.