

## OFFICE OF PRODUCTION MANAGEMENT

Labor Division  
"Training Within Industry"

Bulletin #5

TRAINING AIDS

While the bulk of the defense training must be done on the job by using actual machines and material, there are aids to this training which can be used to help a workman make rapid progress in acquiring skill and knowledge.

Some related scientific information, technical knowledge, or a specific understanding of principles which a fully competent worker must possess, cannot be demonstrated very well while doing the actual work. Any suitable method which provides an understanding of such knowledge to those being trained will pay dividends in getting effective workers in a shorter time.

They are usually used in a suitable class or schoolroom under the leadership of an instructor, or at home by the learner himself.

C. R. Dooley, Director  
Training Within Industry

There are several commonly accepted aids which have a recognized value in helping to train production specialists, all-around skilled workers, and supervisors. A typical group of these which have demonstrated their effectiveness are:

1. Standard Texts, illustrations, charts
2. Libraries of reference books
3. Prepared outlines and guides for conferences and meetings
4. Motion pictures and slide films

While not all of them may be found necessary in each training situation, it is frequently found that one or the other can contribute to a more complete understanding of the objective toward which the training is aimed.

STANDARD TEXTS

The use of such aids as handbooks, mathematical texts, treatments of metals or other materials, chemical and metallurgical processes, etc., are recognized as an aid in training and specific applications for them can readily be found in many training programs. These standard texts are used to supplement the training actually given in a manipulative skill.

In some instances illustrations on a large scale specifically worked out to show the effects of certain operations, the structure and internal arrangement of machinery, as well as the places on machinery where lubrication or special care is necessary, all lending themselves to a use in supplementary training. In like manner, wall charts, or smaller-sized charts, particularly referring to sizes of drills, taps and other tools, shop organization, production flow, and a variety of other display matter may be effectively used.

LIBRARIES

Many industrial training programs, as part of their setup, have shop libraries in which selected books covering some of the related subjects are available for any employees use during out-of-work hours. In addition to these shop libraries, there is usually available in every locality

public libraries which have books available on industrial subjects which cover a wide range of subject matter. Lists of these books are often prepared on a catalogue basis which makes the selection of a particular volume easy to make.

In addition to the recognized standard text books, such libraries include pamphlets, periodicals, trade catalogues, shop manuals, and cuts and diagrams which are more current in their application than the more comprehensive texts.

Thus through books, charts, and pictures, oftentimes the best possible technical information from schools, colleges, and libraries is made available for men and women who are fitting themselves to work in defense industries.

### CONFERENCE OUTLINES

In order to save time in setting up a complete training program, firms which do not have a very extensive background in training may obtain outlines which are available and which cover most of the usual training activities. In connection with supervisory training, a good deal of experience has been crystallized and is available in outline form. Lists of suggested subject matter for discussion, arrangements of the order in which discussion may be best handled, together with guides for a conference leader, can also be secured. In like manner, outlines of training courses which have been developed and used by industrial firms have been prepared and can often be had by a firm in a similar line of production on direct application to these firms. Such material is also available from the state vocational departments and extension departments of some universities.

Such outlines should be viewed as guides for they rarely can be followed exactly as presented. They do, however, offer ground work aid in the setting up and conducting of a program to meet specific training needs.

### MOTION PICTURES

For many subjects, particularly relating to scientific and technical information, the moving picture offers an excellent medium for presenting accurate information. Some work films processes are also available, particularly metal work such as riveting, machine tool operations, punch press, and assembly work.

There are a number of commercial producers of motion pictures who have lists of such subjects which can be considered if motion pictures seem to be suitable for best presenting a particular part of the information. The motion pictures may be accompanied by sound and often are made in natural colors. In addition to motion pictures, slide films, which, of course, show a series of still pictures usually accompanied by a lecture (recorded on discs), are also available covering a wide variety of subjects.

Slide films and motion pictures, both silent and with sound effects, are available for presenting fundamentals of supervisory work on which much information is available through commercial producers.

The degree to which either or all of these aids can be used to advantage in training has to be decided by the particular firm considering it. In no case can such aids to training be considered as a substitute which will completely eliminate the need for specific instruction in the actual handling of tools and materials by an experienced operator or instructor.

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