TRAINING WITHIN INDUSTRY MATERIALS

Bulletins Issued by Training Within Industry and Outlines of the Training Within Industry Programs for War Plants and Essential Services

WAR MANPOWER COMMISSION
Bureau of Training
Training Within Industry Service

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TRAINING WITHIN INDUSTRY MATERIALS

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I—Training Within Industry Bulletins

Training Within Industry was organized in August 1940. Its immediate purpose, as far as could be seen then, was to provide a clearing-house service in industrial training techniques, and to make training consultation available to contractors which requested this service. This objective, of course, expanded as conditions of war production changed.

During the first year of existence a number of bulletins on the need for training in expanding plants and on generally accepted training techniques were written for defense contractors. Later a few bulletins were added to the series—in order to provide materials needed in the T. W. I. programs.

This section includes, in their latest editions, all of the Training Within Industry bulletins. Many of them, since they were prepared for use on problems of conversion and expansion, were allowed to go out of print when war production struck its full stride and so have not been distributed during the past two to three years. They are included in this complete set in order to give a picture of industrial conditions and problems at the time they were written.

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Originally issued October 1940
Revised June 1943

DEVELOPING ALL-ROUND SKILLED CRAFTSMEN THROUGH APPRENTICESHIP

This bulletin embodies the principal features of apprenticeship taken from the best practices found in leading industries and will serve as a basis for apprentice training in practically all situations. It was prepared with the assistance of the staff of the Apprentice-Training Service, War Manpower Commission. The field and headquarters staff of Training Within Industry assists the Apprentice-Training Service by promoting the use of apprenticeship and advancing worker programs. On the other hand, many Apprentice-Training representatives are serving as Training Within Industry panel members.

The training of production workers in operations requiring a single skill is not a substitute for apprenticeship. Both programs have a distinct place in emergency war production and should be carried on simultaneously. Trade apprenticeship should be regarded not only as a long-term program from which industry must procure most of its future skilled craftsmen but also as a source from which set-up men, lead men, as well as some future supervisory and technical personnel may be drawn.

Apprentices trained under the standards of the Federal Committee earn their wages from the beginning, and they carry their weight in output.

C. R. Dooley, Director
Training Within Industry

APPRENTICESHIP POLICIES FOR WARTIME

Apprenticeship is a war activity and must continue to expand to meet war needs. Planning for a long war is necessary for victory, and apprenticeship is a long-range program. Its features are really expanded by the war program, for a certain number of all-round skilled workers will always be needed to supervise the large number of workers knowing only one skill or a small group of skills, and to perform that small proportion of highly skilled work which mass production cannot eliminate.

Skilled men are needed to produce delicate and complicated mechanisms for anti-aircraft guns, airplanes, and other vital war weapons. Since a large number of present skilled workers fall into the older age groups, apprentices must be trained both to replace these older workers and to meet the war demand for additional highly trained journeymen. Even while in training, apprentices frequently are assigned to the important function of breaking in new workers on single machines.

The Federal Committee on Apprenticeship recommends that apprenticeship programs be continued and maintained with new vigor, and that solutions be found for war time apprentice training problems which will serve the pressing

needs of war production for all-round skilled workers and also serve the best interests of the nation's young people. For the war's duration the Federal Committee has made the following recommendation concerning the training and utilization of apprentices:

1. Establish apprenticeship programs on the basis of regular peacetime standards, but including such wartime standards as are necessary to develop trained workers essential to the conduct of the war.

2. Amend existing apprenticeship programs to provide for the training of apprentices as rapidly as they can acquire reasonable proficiency in each trade process.

3. Improve job supervision and related classroom instruction of apprentices so that the period of learning time may be shortened. Advancements should be measured by objective tests established or given by joint apprenticeship committees.

4. Where it is imperative in the interests of war production to secure all-round skilled workers in the minimum of time, apprentices should be selected from groups least vulnerable to military service. Preferred groups in this category include married men from 20 to 30 years of age with one or more children; men classified as ineligible for military service for physical reasons; military personnel released from active service; and, for some trades, women.

5. Where the need is for all-round skilled men in the future, the Committee recommends that apprentices be selected from the 16 and 17 year age group but without the expectation that they will be deferred if the time comes when they are needed in the military service.

6. Because in some war production plants and industries, there are acute shortages of skilled workers to serve as supervisors, foremen, lead men, and job instructors, the Committee recommends that advanced apprentices be moved into any job classification which will permit utilization of their highest skills; and that they should be paid the wage rate applicable to the job to which they are promoted.

7. Where advanced apprentices exist in any plant in excess of the number of jobs available for the utilization of their highest skills, the Committee recommends that employers and employees voluntarily set up machinery for the reclassification of such advanced apprentices and for their transfer to other plants where there is a critical need for such skilled workers.

The needs of each industry and of each plant should be carefully analyzed and the apprentice training program should be worked out in the manner best suited to fill those needs.

APPRENTICESHIP PROGRAM

The objective of apprenticeship is the development of all-round skilled craftsmen. This is accomplished by a program of production work assignments in which each apprentice follows a pre-determined work training schedule which is accompanied by supplementary instruction. The major part of apprentice training is done on the job, at productive work.

A well-balanced program provides not only for efficient training in trade skills, but allows time enough for the apprentice to mature as a responsible worker.

On the other hand, the program should enable each apprentice to progress according to his individual learning ability. Some apprentices are thus able to successfully complete their training in a somewhat shorter time than the established period.

Definition of "Apprentice" and Minimum Standards of Apprenticeship

The Federal Committee on Apprenticeship has issued the following brief descriptions:

1. Definition of "Apprentice":

   The term "apprentice" shall mean a person at least 16 years of age who is covered by a written agreement registered with a State Apprenticeship Council or the Federal Committee on Apprenticeship, providing for not less than 4,000 hours of reasonably continuous employment for such person, and for his participation in an approved schedule of work experience through employment, which is supplemented by 144 hours per year of related classroom instruction.

2. Basic Standards:

   a. An apprenticeable occupation is considered one which requires 4,000 or more hours to learn.

   b. A schedule of the work processes to be learned on the job.

   c. A progressively increasing scale of wages for the apprentice should average approximately 50 per cent of the journeyman's rate over the period of apprenticeship.

   d. Provision for related classroom instruction (144 hours per year of such instruction is normally considered necessary).

   e. The terms and conditions of the employment and training of each apprentice to be stated in written agreement and registered with the State Apprenticeship Council.

f. Review of local apprenticeship programs by a State Apprenticeship Council.

g. Apprenticeship should be jointly established by the employer and the employees.

h. Adequate supervision and the keeping of records should be required for all Apprenticeship programs.

THE APPRENTICE-TRAINING SERVICE

The functions of the staff of the Apprentice-Training Service are:

1. to promote sound labor standards of apprenticeship in industry by joint cooperation between management and labor

2. to provide technical assistance in the establishment or improvement of apprenticeship systems

3. to assist in the development of programs for trainees at less than the apprenticeship level

4. to provide advice and assistance on labor problems affecting training

The actual training of apprentices is provided by industry under planned programs meeting the standards recommended by the Federal Committee. The Apprentice-Training Service, with the cooperation of State Apprenticeship Councils, promotes and assists industry in developing such training programs.

Setting up an Apprenticeship Program in an Industrial Plant

The responsibility for the apprentice program should be assigned to one person qualified to handle it. Most companies find that the plan is productive of best results when responsibility for it is placed upon a single supervisor fitted for this work by both personal qualities and experience. This is a full-time job in large plants and a part-time job, but a major responsibility, in smaller plants.

Experience with well established apprenticeship plans indicates that, in setting up a program, action should be taken on the items indicated in the sections which follow. Experience in plants having bargaining agreements with organized labor shows that joint committees of management and labor can most effectively establish policies and procedures for the training of apprentices covering all following points:

1. Determine the skilled occupations in which apprentices are to be trained.

2. Determine the number of apprentices to be trained.

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3. Establish the term of apprenticeship.

4. Provide for instruction and coaching on the job, including the selection and scheduling of work experience.

5. Arrange for classroom instruction in related trade subjects.

6. Establish a wage scale for apprentices in relation to the going rates for skilled workers in the trades in which apprentices are to be trained. The scale should be so established as to provide periodic increases as apprentices progress. Apprentices produce while learning, and their wages should correspond to the level of their skills.

7. Provide for periodic tests of the progress of apprentices.

Selecting Candidates for Apprenticeship

The ultimate success of an apprenticeship plan depends more upon the ability and character of the young men selected than upon any other single factor in the program. The following are fundamental considerations in selecting those to be trained:

1. Give special attention to the character (including indications of perseverance), mechanical aptitude, and intelligence of candidates. Consider not only subjects (such as arithmetic and blueprint reading) which have been covered in school, but also whether school progress was at a normal rate or better.

2. Take full advantage of all information available in plant personnel records for those already employed who desire to be all-round skilled workers.

3. Consult with school authorities for additional evidence of aptitude and suitability of apprentice candidates.

4. Establish a definite probationary period to serve as a double check on the suitability of those selected.

5. Usually there are candidates who have some trade experience who can be given credit on the term of apprenticeship and who will complete the program in less than the full period. This is particularly helpful in launching a new program and will make available some trained men at an earlier date.

Carrying on the Program

Experience with well established programs indicates that continuous attention is needed on the two basic features of apprentice training, i.e., shop experience and related instruction.

1. Shop Experience: It is essential that carefully organized instruction be given to each apprentice when he starts to work on each new job. In some larger plants where the number of apprentices justifies, a section of the regular shop is equipped and used especially for apprentices.

   The Apprentice Shop is not a practice department. All work is productive and standards are uniform with other sections of the plant. The arrangement is desirable simply because a great deal of individual instruction and attention can be given when the apprentices are grouped. This contributes to thorough mastery of the trade and to shortened learning time. It also enables the apprentice to do a good job alongside the journeymen when he goes into the regular department.

   The Apprentice Shop is often used during second and third shifts as a convenient unit for training production specialists on particular machines.

   In smaller plants the apprentice's shop experience is gained entirely on regular jobs in the shop. In either case care should be used in choosing the kind of production work, bearing in mind its teaching and experience value. The thoroughness and speed with which the apprentice learns his trade will largely depend upon the instruction ability and continuous coaching of the foremen and journeymen immediately over him.

   In cooperation with foremen the apprentice supervisor, or the person in the small plant who is responsible for apprenticeship as part of his duties, should have authority to move apprentices from job to job in accordance with the planned training schedule. Apprentices should be given appropriate increases in their pay when justified by increased skill and knowledge, but according to the pre-determined schedule.

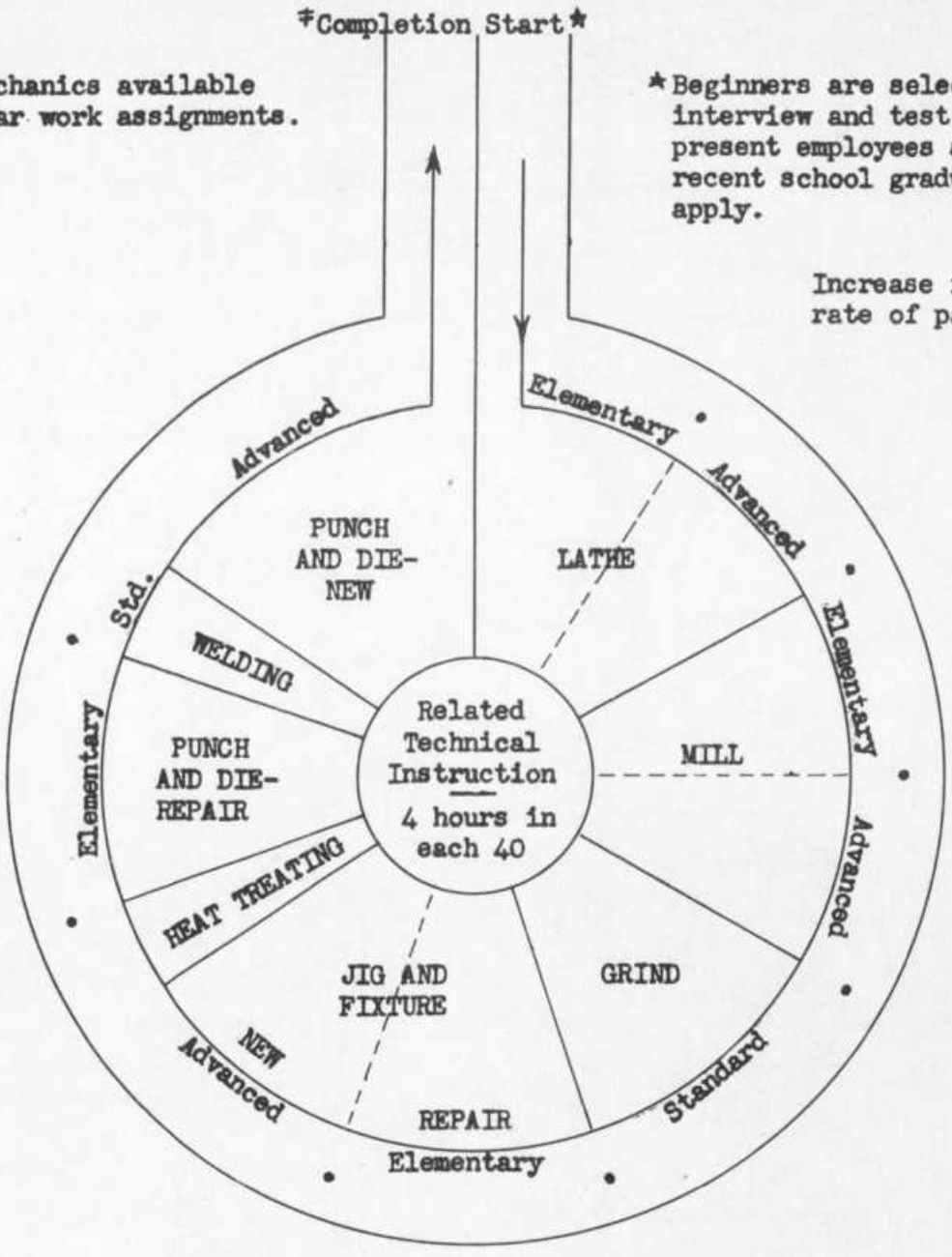
2. Related Instruction: Public vocational schools usually provide related instruction on technical subjects, although some companies establish their own plans. This supplemental instruction should coincide with current production experience. Ordinarily, up to ten per cent of the working hours should be devoted to such related instruction.

Community Apprenticeship Program

Occasionally smaller plants or activities which cannot provide the breadth of on-the-job experience required for apprentice training will combine with other plants and activities in the community. By routing apprentices from jobs providing training in one set of skills in one company, to those which furnish experience in another set of skills in another company, the full range of training can be covered cooperatively.

SAMPLE PROGRAM FOR TOOL AND DIE-MAKING APPRENTICES

Sequence of Work Assignments and Proportion of Time Spent in Production Shop Work and Related Instruction



THE ADVANCING WORKER PROGRAM

In order to meet needs for highly skilled men where there is not enough time to develop all-round craftsmen, the Apprentice-Training Service has set up its Advancing Worker program. This provides for training through a progressive series of jobs with supplementary instruction where needed. Well-rounded skill is attained in specific work of a type which is ordinarily part of a craft or trade.

COOPERATION IN APPRENTICESHIP PROGRAM

The Apprentice-Training Service operates throughout the United States largely through its regional offices. In addition, other public agencies and groups cooperate in the training of apprentices. State and federal employment bureaus assist in setting up the definite selection measures which are necessary, and vocational education funds and facilities supply much of the related instruction.

OFFICE OF PRODUCTION MANAGEMENT

Labor Division
"Training within Industry"

Bulletin #4-A

EXPANDING THE MANAGERIAL ORGANIZATION

Expanding the organization in the initial stages is a simple problem. However, when expansion is required to the point, where as one company executive expresses it, "the supervisory organization is stretched beyond the elastic limit", the problem becomes crucial. Further expansion and use of inexperienced men may mean failure of certain operation, or departments. It may mean the tie-up of the whole plant, high scrap losses and serious difficulties in meeting production and quality standards.

The following plans have been found successful in many companies, and are such that they may be adapted to most any organization. There are many companies to which these will not be new.

C. R. Dooley, Director
Training within Industry

PLANNING FOR EXPANSION

The following four steps are ones normally encountered when expanding an organization. The plans thereunder are basic enough to be adapted to various situations.

1. Give each present supervisor more responsibility.

   When production volume increases, of course, the first obvious method of handling it is to give each present supervisor more responsibility, i.e., more men, more equipment, more floor space, and often more authority. Occasionally sections or departments are combined and placed under one supervisor where previously there were two or more supervisors.

2. Select men from present supervisory force to fill positions of new or greater responsibilities.

   Usually, there is a limited number of qualified supervisors from which men may be selected, competent to take full charge of new departments, new plants or to assume newly created functions.

   Immediate attention to replacement and the preparation of understudies is essential. In fact, many executives find it practical to draw an organization chart, and to place under each strategic position the names of several men who could fill such position, in the order of their availability and competence. On one or two successive charts, plans are drawn showing how the organization would be expanded and men shifted under anticipated contingencies. Thus the department head, General Superintendent or Works Manager, may specifically

plan his understudies and moves, and avoid "getting in a pinch" when faced with a large order or an important expansion. Where there is a Personnel or Industrial Relations Department, this department can be particularly helpful by developing such confidential charts and plans and submitting them to line executives for suggestions and approval.

This procedure also makes it possible to give the maximum amount of organized training to understudies and men who are to be shifted or promoted. The personnel officer, in collaboration with operating executives can then prepare job rotation, progression and observation training, and institute organized instruction in the fundamentals of supervision and technical information.

3. Select and train beginning supervisors.

When it becomes necessary, new supervisors must be selected and appointed. Each company management shows the best source in each instance, whether from the ranks of workers, engineers, technicians, or others.

Experience proves conclusively that intelligence, personality, vitality and other leadership abilities should outweigh technical or trade ability when such selections are made. Of course, there are some functions where technical knowledge is essential, and in such cases it must be recognized.

The following approach represents the principal features of a successful plan now being widely used, by which properly chosen appointees are developed into quite competent supervisors in 8 or 10 weeks.

(a) Assign the new appointee to elementary supervisory work - 2 to 3 weeks.

It has been found that special training for a new supervisor in the principles of supervision, labor policies and similar fields, is more effective AFTER he has had a taste of supervisory responsibility. For the first two or three weeks, therefore, he should be given supervision of a normal experienced group of workmen where there are no exceptional problems of production, discipline or worker training. During this first assignment, he should be made responsible for routine duties, such as - shop orders, time tickets, material ordering, work assignment, routine production, quality and schedule control. He should be closely guided and coached in these matters by an experienced supervisor. He should NOT be thrown into problems or controversies on wage payment, grievances, discipline, employee

selection, transfer or dismissal, maintenance, cost analyses and like questions.

(b) Give the new supervisor intensive instruction - 1 to 2 weeks.

Take the beginning supervisor (in groups of 3 or 4, up to 12) off the job 4 hours a day for 15 to 18 consecutive days or full time for 6 to 10 days. Give him concentrated instruction in the principal features of his new supervisory job. This will prepare him to deal more confidently with difficult situations as they arise. Otherwise it may be months before he encounters them and learns how to deal with them through costly trial and error. Discussion of typical operating cases, problems and questions should be lifted directly out of job situations. An experienced training specialist, using suitable training quarters, can thus help beginning supervisors to acquire much of the knowledge and judgment which would otherwise require months or years to gain.

This intensive instruction should be scheduled about as follows:

Supervisory job planning	- 6 hours
Theory and practice of instructing workers	- 48 hours
Personnel responsibilities	- 6 hours
Labor policies and procedures	- 6 hours

This plan particularly requires the careful attention of management, training specialist and foreman alike. While it is difficult to take the new man off the job, companies find that the long term advantage outweighs the short term inconvenience. After such instruction, men are able to accept full responsibility sooner and make fewer mistakes in the meantime.

(c) Assign the new supervisor to more difficult and responsible work - 4 to 6 weeks.

The new supervisor now has begun to have a basis for judgment and should be placed in a position where he is responsible for a normal working group including some inexperienced workers. He should have contact with the full range of supervisory problems, and under experienced coaching, should be given responsibility for them just as rapidly as he is able to handle them properly.

In some situations, it may be found at this stage that it will expedite production if the new supervisor is given the special assignment of instructing new workers. It is sometimes advantageous to use him on such work for several weeks or several months.

(d) Put the new supervisor "on his own".

At this stage, the new supervisor may be given normal line responsibility under normal supervisory guidance and share in whatever staff meetings, supervisory conference, or other organized aids are available.

4. Develop a reserve or pool of potential supervisors.

Future needs for supervisors should be anticipated and a pool of qualified men developed.

Many men are broadening their outlook and scope of knowledge through out-of-hour study in university extension, correspondence schools, company classes, and through individual study of company products and producing methods. Often among such men there are excellent candidates for beginning supervisory jobs.

It has been found advantageous to make arrangements to use an outside service - state university or state vocational education department - for a course in "Foremanship" adapted to their particular needs. Under such outside auspices, enrollees do not expect immediate recognition by the company and yet the company has a pool of interested and partially trained potential supervisors from which to draw.

When pre-supervisory training is set up and offered by a company and open to voluntary enrollment, men who take the training will expect recognition. This is true in spite of the fact that no job offers are made or implied, yet their disappointment is a serious morale factor when they are not selected for supervisory positions.

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TRAINING WITHIN INDUSTRY BULLETIN SERIES

War Manpower Commission
Bureau of Training

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HOW TO GET A PLANT TRAINING PLAN INTO ACTION

More training plans fail because they are poorly presented and inadequately sold to management than for any other reason. Each instance of this kind is unfortunate. Even more unfortunate are the good plans that operate half-heartedly, all for the lack of proper management support. This bulletin deals specifically with the problem of getting a training plan into action so it produces results.

When the training man does something FOR the line organization, the problem of selling is usually not too difficult. In such cases management often needs only to give approval. An example is approving a program of class instruction in any technical subject, like arithmetic or blueprint reading or electricity, or approving the use of engineering school extension facilities.

Those activities that a training man does THROUGH the line organization not only must be approved by management but must be done by management because they are a part of the management process.

C. R. Dooley, Director
Training Within Industry Service

STEPS IN GETTING A PLAN INTO ACTION

The steps required to launch a training plan will vary according to the plan. The following outline covers the four basic steps which the training man commonly follows in order to get a plan into action:

1. Get top management support
2. Sell and inform middle management
3. Select and train the instructors or conference leaders
4. Schedule sessions

This material will be useful to training men in large or small companies - whether they have full or part-time responsibility - whether or not they are called training men - in fact to anyone responsible for training in a staff capacity, who wants to get results through the line organization.

GETTING TOP MANAGEMENT SUPPORT

Top management is the operating official who has the final authority to say "yes" or "no" on any question that requires management approval.

What preparation should be made prior to the interview?

This is often the key to the success of the whole program. Be clear in your own mind just what is to be accomplished. In practically every case there are just two end objectives: to secure acceptance of the training plan, and to secure agreement to sponsor it.

Before arranging to present a plan to management, the training man must plan how he will carry out the following steps:

1. Outline a plan and the mechanics of the necessary procedures for keeping the plan in action.

2. Establish the duties of all persons with staff responsibility for keeping the plan in continuing operation.

3. Establish the duties of those with line or operating responsibility for keeping the plan in continuing operation.

4. Outline a plan to evaluate the results in terms of measurable data:

production increases	savings in machine use
reduction in "break-in" time	fewer accidents
savings in scrap	less fatigue
savings in manpower	reduction of grievances

5. Get management agreement to review these results at regular periods as a basis of giving encouragement and backing.

6. Establish procedure for getting reports of results and production benefits routed to the top executive.

Supporting material and exhibits must be ready. The value of such materials varies according to the man using them and also according to the executive to be sold. Some supporting materials which might be used are:

results reports from other industries
charts of production problems and their solution through training;
samples of the materials to be used in the training plan

How should the interview be conducted?

Each interview differs according to the personal relationships existing. The following points cover many of the important details:

1. State purpose of the meeting: Some executives want to get the recommendation or proposition stated in a point-blank manner at the beginning. Others want background before hearing your plan or conclusions.

2. Build the advantages to him and to the organization: Sell him on what the training will do: Talk about the PROBLEM you have to discuss - not "Training." Avoid arguments - use the "yes - but" approach.

3. Get a decision:

   a. Tell him how it works - outline the mechanics you recommend, i.e., your recommendation for leaders, sessions, and the like.

   b. Secure his definite acceptance - ask him to approve or designate the individuals who will assist in the plan.

c. Establish his responsibility for getting the plan off to a good start. Get him to agree to: personally sponsor the plan, approve the details, and call and chairman the meeting at which it will be launched (set definite date if possible).

d. Establish his responsibility for getting CONTINUING results.

Beware of too ready acceptance - of too ready a "yes." Many a training man has been swept off his feet by a top executive who agreed to everything promptly, or said or implied, "You just go right ahead and do it." Then back in his own office the training man realized that, instead of getting the boss to take the lead, he was to take the lead.

Perhaps the executive will not give final agreement until the matter is discussed with the executive staff. If this is the case, arrange for such a meeting immediately. Cover the complete story with the executive group.

SELLING AND INFORMING MIDDLE MANAGEMENT

A meeting with executives is conducted to get group approval of the training plan, to convince them of its value, and to secure the maximum possible understanding and cooperation of all management. It is necessary for a specific date and time to be set and a satisfactory meeting room arranged. The meeting must be called by the TOP EXECUTIVE over HIS SIGNATURE.

What should be covered in such a meeting?

The introduction should be made by the sponsoring executive. The plan is presented by the training man, the industrial relations director, the works manager, or by the person who carries the most weight and who can be persuaded to do the job. This presentation should cover (1) what the training will do in terms of production benefits, (2) what it is, and (3) what must be done by management to make the plan function as a continuing production tool.

SELECTING AND TRAINING LEADERS

Who should select the prospective instructors or leaders?

The use of special leaders or instructors is not a required part of every program, of course. The initial list should be put together by the training man. Depending on the size of the plant, he should get the counsel of others regarding the ability of each proposed leader. The final act of selecting and notification should be done by each prospective leader's own boss.

Who make the best leaders?

Personal characteristics are among the most important considerations:

1. Operating men often make excellent leaders. However, some operating people are too busy and are victims of too many pressures.

2. "Acceptability" of the leaders can be a controlling factor.

3. The all-round ability of a prospect is the most important consideration. The job must be done by those who "can't be spared." The program fails if done by those "who haven't much to do anyhow."

4. Competent staff people often can give time more readily and can do the best leadership job.

Do leaders need any special preparation?

Even if the meetings are not more than staff meetings with their own people leaders need some help. If they are to hold special meetings or if they are to become trainers for any of the T.W.I. programs, they need even more attention. The training man must arrange for the special coaching to be given to the leaders. This coaching may vary from a short one-hour explanation of the company's plan for handling returning veterans, to a five or six-day Institute on how to successfully conduct one of the 10-hour T.W.I. programs.

Prior to the beginning of their preparation to handle a new program, the prospective leaders should be called together and all points connected with "who does what, and when" cleared up. At this meeting, the training man can "size up" the group and perhaps pick out those who won't make the grade. It will save time and embarrassment to him and the prospective leaders if this can be tactfully handled ahead of time.

GETTING SESSIONS PROPERLY SCHEDULED

When should sessions be scheduled?

BEFORE the prospective leader or trainer attends the special leaders' conference, all arrangements for sessions he will put on MUST be completed. The leader loses his enthusiasm if he has to wait a week or two before he puts on his first session. As a result, he has forgotten many of the fine points; his mind becomes occupied with other things, and he does a mediocre job.

What must be considered in scheduling sessions?

1. Number of supervisors or others to be trained.

2. Timetable for coverage, starting dates, and starting groups.

3. Determination as to whether training is to be during working hours or out of hours - management should be urged to compensate supervisors for any out-of-hours time spent on basic training.

4. Selection of meeting rooms and checking of equipment.

5. Notification of persons who are to meet in each group (such notification should come from each person's boss).

SUMMARY

Any training program that involves supervisory practice throughout the plant is a big job. One of the difficulties with the training function in most companies is that training men and management alike take a superficial view. Influencing the way men conduct their daily jobs is, in actual fact, one of the most difficult undertakings in the whole field of industrial management. Any training man who wants to measure up to the size of the job that he holds should start by recognizing with great confidence yet humility that the job is big and is difficult, and that he can only hope to get it done through the line organization. An "expert on training" cannot do it all himself.

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Buureau of Training
Waar Manpower Commission

Washington, D. C.
December, 1944

HOW TO GET CONTINUING RESULTS FROM PLANT TRAINING PROGRAMS

Plans for using the knowledge and skill acquired through training must be appproved at the same time as plans for training are adopted. There are four fundamental things that the LINE organization must do to assure that results are obbtained:

1. Assign responsibility.
2. Get adequate coverage.
3. Provide for coaching.
4. Report results and give credit.

"Continuing results" are obtained in various ways. A company may take vaarious means to see that the supervisors and the workers who have been innstructed - either in group sessions or through personal instruction - use whhat they have learned. Naturally the only persons who can insist on use and buuild real values are those in the LINE organization.

However, a STAFF person usually has an important place in helping the pllant to get results. Such a staff person gets his management to remind the liine organization from time to time that continuing results are expected. The sttaff person should never do this reminding. He also provides technical asssistance to the line organization on exactly HOW to use the training that has beeen received.

The way of providing this continuing attention and assistance varies from pllant to plant. One manager, for example, may keep company activities going maainly by means of reports and will want to emphasize reports on results on trraining. Another manager does this by means of periodic meetings - each accordinng to his habit in handling other production matters.

C. R. Dooley, Director
Training Within Industry Service

FUNDAMENTALS FOR GETTING CONTINUING RESULTS

There are four fundamental points that must be carried out in order to geet continuing results from any training:

1.. Assign Responsibility for Getting Continuing Results.

The sponsoring executive must make it clear to the members of the executiive and supervisory staff that they are responsible for results. Many top exxecutives call a meeting of all those in the middle management group for this puurpose.

To get the top executive to take appropriate action on this fundamental, the training director can get a decision by discussing the present procedure forr informing the executive and supervisory organization of any new responsibility or a new policy.

2. Get Adequate Coverage.

In any training program, adequate coverage means training for every persoon who needs the specific knowledge or skill and for their superiors to the extent needed by them in order that they support the program. In addition to getting adequate coverage in the training sessions, refresher or "brush up" sessions aree often used to advantage.

Getting adequate coverage is often necessary before it becomes possible to do much in the way of assuring continuing results. It should be made clear that the more every supervisor and every executive knows about the particular training program, the better he can supervise its application for continuing results.

Many programs fail to get results because the coverage was not adequate, and there was not sufficient participation far enough up the line. Top executivves take interest in scrap, accident rates, etc. - should they have less informationn about the steps taken to overcome these problems?

3. Provide for Coaching.

Supervisors generally provide assistance to their subordinates on all day-to-day operating matters. Similar assistance should be provided on those phases of the operating job that have been emphasized and "sharpened up" throughh specific training. Coaching, therefore, should be given to supervisors and workers by their own bosses. This is the procedure to be recommended and "sold" whenever possible because it gets the best results. Coaching includes not only the refinement of the content material, but the development of desire and interest in the value of the training to the individual.

Every supervisor (the same as every worker) reflects the thinking of his boss. If his boss shows interest, he shows interest. If his boss considers a matter important, he likely considers it important. Coaching by the boss demonstrates that the company really "means business."

The training director usually assists the line organization by providing a simple, specific coaching procedure - one that will clarify any misunderstandings and re-emphasize all basic points - but line executives themselves should do the coaching. Details on coaching are given in the next section of this bulletin.

4. Report Results to Management and Give Credit.

Appropriate executives should be informed as to results of any training in order to give suitable support. Busy executives need to know what is going on so they can appraise results. Experience has shown that wherever continuing results are obtained there is a flow of definite information to executives aboutt these results.

How this information is to be conveyed, how often, and in what form is again a matter for each company's decision. Naturally, the purpose of any report or periodic review is to show the relative improvement accomplished by the use of the particular training program.

When discussing with a plant executive results to be expected, it must be remembered that many influences in a plant may contribute to certain results. Training programs help get better results, of course, but should never be presented as the only means for complete solution of all production problems.

Prompt and proper recognition by the appropriate executive is necessary to obtain continuing interest and, hence, continuing results.

Again, how often and by what means credit is to be given are decisions each company must make. The giving of credit is perhaps the most powerful force that can operate to stimulate interest, enthusiasm, and continued action.

PROVISION FOR COACHING

Coaching is the third of the fundamentals for getting continuing results mentioned on the previous page. There are two objectives in any coaching procedure:

> To give the supervisor a renewed understanding of how to improve his use of what he has learned in the training program, and to stimulate interest and desire to use the training based on the results to him personally.

Whether this understanding is gotten over to each person individually or is given to several in a small group is a matter to be decided in each instance. The one essential is to get a thorough understanding of the program and its value.

How to Coach

Getting a negligent worker or supervisor to promise to "do better" or "showing him how" is not coaching. The objective of any coaching is to have each person understand and use what he has learned.

As an example, it has been found that, in increasing the skills of instruction, of improving methods, and of leading, the following five coaching steps are adequate and effective. It is not expected that all five items will be used in the order listed or that all five will be covered at any one contact. Naturally, the coach must be thoroughly grounded in the particular program before he can use the coaching technique.

1. Give reasons and advantages why the program should be used.

Good tangible reasons for using the program under discussion, based on specific departmental experience if possible, should be presented - typical reasons such as:

Less tool breakage	Better use of manpower	Fewer misfits
Fewer accidents	Savings in materials	Fewer gripes
Less scrap	Better use of space	Fewer grievances
Shortened break-in time	More production per machine-hour	Less turnover

2. Get understanding of the principles.

It is essential to review the basic principles or chief points of the program. Every point should be clarified. A good way to determine whether the program is understood is to ask questions about various points. The application of the various points to some current problem or situation makes them practical and vital. Always use plenty of "reasons why."

3. Select a problem and work on it together.

This is the most helpful coaching device that can be provided. The person may need help in identifying a problem. Whatever the problem that is identified, nothing shows so clearly the usefulness of the training program as working it out together. Working it out together should mean that the coach offers guidance and assistance but does NOT do much of the work himself. The coach sees that the METHOD is used; the supervisor makes the application.

4. Ask him to work out another problem alone.

Another problem should be identified and the person being coached is asked to go ahead and work it out alone. This will increase his confidence in his own ability. It also provides a logical reason for agreeing to check with each other at a later date.

5. Give him credit for good results and good effort.

Appropriate credit should be given according to plant custom. Often a determined effort to apply a program in the face of many difficulties is as worthy of credit as actual results. The giving of credit should not, of course, be overdone. The thought should be left that these occasional checks are never to be concluded. The supervisor being coached should understand that he is expected to use what he has learned in the program, that he will be checked as to his use of it, and that he can receive some tips on HOW to use it, month after month, presumably as long as the supervisory relationship is maintained.

TRAINING WITHIN INDUSTRY BULLETIN #4-C

Bureau of Training
WAR MANPOWER COMMISSION

Washington, D. C.
December, 1942

HOW TO IMPROVE JOB METHODS

You know materials are growing scarcer. Machines are difficult to get or replace. And manpower is getting to be a critical issue.

A big part of the answer is to develop better ways of doing the work you supervise with the manpower, machines, and materials NOW AVAILABLE.

Perhaps you worked out a better way to do one of the jobs you supervise today. If so, you made an important contribution to victory. But are you working out better methods every day?

Here is a Plan that will help you develop those BETTER JOB METHODS NOW. It will help you to produce greater quantities, of quality products, in less time.

The principles are not new. The Plan was worked out in its present practical and usable form by industrial men who are facing the same problems as yourself.

Use this plan every day. Use it on EVERY job you supervise. The more you use it, the more opportunities you will find to put it to work.

Today, the need is to improve JOB METHODS to help do the biggest production job in history! The need is for you to make MORE improvements and to make them NOW!

C. B. Dooley, Director
Training Within Industry Service

Job Improvement has always been a part of your job.

You are looking for improvements every day. This is, and always has been, a part of your job. Continued improvement of basic ideas has made our country what it is. Think of the automobiles of 15 years ago. Compare them with the cars of today. Remember the radio of a few years ago? And the airplanes? And the rifles - and guns - in fact, thousands of modern pieces of fighting equipment that were unknown a few years ago? All this progress is the result of improvement. Some of it is improvement in design to be sure. But much of it is improvement in the METHODS of production. You may not be able to do much about basic design, but you CAN do something about the production methods.

Go after the "small things."

Look for the hundreds of small things you can improve. Don't try to plan a whole new department layout - or go after a big new installation of new equipment. There isn't time for these major items. Look for improvements on existing jobs, with your present equipment.

The "WAY" you make improvements is of first importance.

Go back in your memory as a workman.

Remember the time you "put up" with a job because it was awkward and caused you needless trouble and worry? Remember the "better way" you finally worked out which would have made it safer and easier to do? Remember how you wanted to tell your boss about your idea but he wasn't the kind of a fellow who was easy to talk to, and you never mentioned it to him?

Or perhaps, you remember the time when the boss "sprung" his new method on you and you had a pretty tough time "swallowing" it.

You will NEVER forget the time when the boss "had an idea" and asked you for YOUR opinion about it, and how you made several good improvements in his plan and how pleased you were.

Then go back over your experience as a supervisor.

Remember the time you put a new idea "up to the boss?" It was rather poorly worked out and he found a "bug" in your plan right off? And you didn't propose any more.

Remember the time you really had a good plan, but you neglected to get some of your fellow supervisors and engineers "in on it" and the plan fell flat?

Then, of course, you will NEVER forget the "better way" you worked out, that was put into effect and that did work. You still can feel the satisfaction that it gave you.

How to Improve Job Methods.

BETTER JOB METHODS are needed NOW - desperately so - but there is a RIGHT WAY to make them. Here is the plan. It has worked in thousands of cases, and in practically every kind of industry. There are FOUR STEPS to follow. No one step can be omitted. No one step is more important than the other.

STEP I. BREAK DOWN the job.

1. List all details of the job exactly as done by the Present Method.

2. Be sure details include all:

   Material Handling
   Machine Work
   Hand Work

- take any job - take the first one you see in your department.

- just "start right in" - jot down on a sheet of paper every detail as it happens. Do this right at the job. Don't try to do it back at your desk. You'll overlook something if you do.

- don't be secretive or mysterious about it. Tell your workers what you are doing. Be frank and open about the listing of details.

STEP II. QUESTION every detail.

1. Use these types of questions:

   WHY is it necessary?
   WHAT is its purpose?
   WHERE should it be done?
   WHEN should it be done?
   WHO is best qualified to do it?
   HOW is "the best way" to do it?

2. Also question the:

   Materials, Machines, Equipment, Tools, Product Design, Layout, Work Place, Safety, Housekeeping.

   - just start down your sheet of details. Start questioning each one.

   - you won't get far, usually, until some improvements will occur to you.

   - perhaps a "BETTER WAY" will "flash" into your mind. Hold this "new idea" temporarily and question EVERY DETAIL on your list before you start to "dope out" the better way. If you stop to work your "flash," you may help only a part of the job, and overlook a broader or more useful improvement.

STEP III. DEVELOP the new method.

1. ELIMINATE unnecessary details.

2. COMBINE details when practical.

3. REARRANGE details for better sequence.

4. SIMPLIFY all necessary details.

   (a) Make the work easier and safer.
   (b) Pre-position materials, tools and equipment at the best places in the proper work area.
   (c) Use gravity-feed hoppers and drop-delivery chutes when practical.
   (d) Let both hands do useful work.
   (e) Use jigs and fixtures instead of hands, for holding work.

5. WORK OUT your idea WITH others.

6. Write up your proposed new method.

- eliminating unnecessary details prevents waste of materials and manpower.

- combining and rearranging overcome "back tracking" and double handling.

- simplifying makes the job easier and safer to do.

- be sure to get all those concerned "in on" your idea from the start. Don't work out the new method and "spring it" on your people. This applies to your boss, your associates, and particularly to your workers. The best way of all is to work out your idea with them. Make them a part of it.

STEP IV. APPLY the new method.

1. Sell your proposal to the boss.

2. Sell the new method to the operators.

3. Get final approval of all concerned on Safety, Quality, Quantity and Cost.

4. Put the new method to work. Use it until a better way is developed.

5. Give credit where credit is due.

- the boss must be "sold" to get his approval for a trial run.

- the operator may need to know more about it to give the new method a fair test.

- the new method can yield increased production only after it's actually working.

- remember, today's best way, is only for today. Tomorrow there will be a better way - and you will work it out!

- stealing an idea is really a form of sabotage. Be open-minded to suggestions, even if many of them are "wild ideas." A really good one will come along that can contribute to victory.

Often a new method will "pop" into your mind without working through these FOUR STEPS. This is to be expected at the start. However, these "flashes" will soon be exhausted. Don't expect them to continue. For consistent improvement, you must think your way carefully through ALL of the FOUR STEPS. You will have to dig beneath the surface for most of your improvements.

Make the job easier and safer.

Remember, your purpose is to make jobs easier and safer - NOT to make people work harder or faster. This is NOT a speed-up plan. It IS to show people how to work more effectively. Keep this basic purpose clearly in mind and you can't fail. Furthermore, you will find "improving job methods" is an interesting undertaking. Most important of all is the fact that you will contribute to VICTORY!

TRAINING WITHIN INDUSTRY BULLETIN

War Manpower Commission
Bureau of Training

Washington, D. C.
June, 1944

HOW TO IMPROVE JOB RELATIONS

In these times, for maximum production, machines and materials are not enough. We need the individual skills and the maximum cooperation of every man and woman who is at work turning out what our armed forces and civilian workers have to have.

You know how important it is not to have any lost production because of misunderstandings on the job, or because people do not realize the vital part they have in the war effort, or because some one is slowed down on his job by things that happened off the job.

Experienced supervisors who have demonstrated their ability to "work well with people" have developed a special skill. You can acquire this skill. By making use of it, you can be more sure of meeting your production requirements.

This is the time; and the place is right where you are!

C. R. Dooley, Director
Training Within Industry Service

EVERYDAY PROBLEMS

Does anyone in your department ever refuse to do some particular job? Or, maybe, even quit his job? Do you have any people who are discouraged or who make other people dissatisfied?

Are there any changes being made in your plant - in how you work, what you do - in the people you work with?

Does everyone come to work regularly, or are you ever held up by absenteeism? And do you ever find you are by-passed by people who go over your head to your own boss?

All job relations problems don't come up at once, but they do occur, and management does hold supervisors responsible for handling such problems.

The supervisor today needs a high degree of skill to handle his own problems. But, as part of the skill, first of all, he needs a strong foundation for good relationships with the people whose work he directs.

THE FOUNDATION OF GOOD RELATIONS

You do not produce a ton of steel, build a single jeep - it is the people you supervise who turn out production. The supervisor needs to remember constantly that results come through people.

There are certain basic principles which are foundations in establishiing and maintaining good relations between you and those whose work you direct. Always remember to:

Let each worker know how he is getting along.
Give credit when due.
Tell people in advance about changes that will effect them.
Make best use of each person's ability.

These principles apply to all workers, and they do not represent acticons which are to be taken only once or at rare intervals. Constantly following tthem in day-to-day operation will pay dividends.

Let each worker know how he is getting along.

It is important to keep people posted on how they are measuring up ageainst what is expected of them. The "everything is all right unless I tell you so"" philosophy does not fit into modern supervision. The man who is doing all riight should be told so. And it is often more important to check the person who iss just beginning to skid. If you have to say "you've been slipping for quite sa while," you know what the worker will feel - "why didn't you tell me sooner?""

Give credit when due.

The worker and the department deserve to know when their efforts have contributed to an accomplishment. Recognition of good work or faithful performaance makes it easier to get extra effort again. You like to get proper credit yourself.

Tell people in advance about changes that will affect them.

It is not always possible for you to let a worker "in" on all decisiopns which affect him, but he can and should always be given the chance to "have his say." If you give the reason for changes before they are made, you will avoid many misunderstandings.

Make best use of each person's ability.

Everyone likes to feel, particularly in war time, that he is working at his highest level of skill and ability. Take advantage of special interest in kinds of work, and give each person as much and as responsible work as he cann handle.

TREATING PEOPLE AS INDIVIDUALS

While these foundations apply to all people, you cannot let it go at "treating them all alike." No one wants to be known simply as a time-card number or as "the new man" - neither you nor those you supervise. We are alll different. What happens to one operator off the job makes him different frocm his partner on the same job. Each of us wants to be known for his own personal characteristics. There are things that you feel are important to you as an individual. You must remember other individuals feel the same way.

Applying these foundations of good worker-supervisor relations will not guarantee smooth operation for you, but will prevent many misunderstandings.

However, there are other things which you must consider. You need to know each individual employee and what is important to him. You need to know your people for everyday operation of your department, and you particularly need this information when you have a difficult situation to handle as a job relations problem.

HOW TO HANDLE A PROBLEM

Because changes do occur, and problems do arise, you need to have skill in handling the situations which are within your responsibility. Often you are on the spot and you feel you must do something immediately. Hasty action may mean that you have a more difficult situation to handle later. You always must stop to consider just what you are trying to accomplish. These steps should then be considered as the outline for action.

1. Get the facts - be sure you have the whole story.
2. Weigh and decide - don't jump at conclusions.
3. Take action - don't pass the buck.
4. Check results - did your action help production?

1.. Get the facts.

Problems may come up because of something that happens at the moment, but you need to get the whole background. Some of it will be made up of facts about the employee - his age, length of service, and experience on this job.

You will need, of course, to take into consideration both the plant rules and just "the way things are done here."

Remember in getting the facts you may think you know the person quite well, but if you classify him as a "good fellow" or a "chronic kicker," you are not really looking at an individual person. You must regard him as a person who is different from his work partner and from every other person in the department, in every single aspect whether by a very slight or a very great degree.

As a supervisor, you must know what that man thinks and feels about himself and the people around him. Find out what the man wants - is he able or willing to express it - and what does he think should be done? and why? The experienced supervisor knows that he must also consider such other factors as health and working conditions which may be affecting the man.

If more than one person is involved, you must go through the same fact-finding steps for each person. Before you can plan what to do, you must be sure you really have the whole story.

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2. Weigh and decide.

All these facts must be assembled and considered together. They will suggest various "possible actions" which you must check against your objectives, and the effect on the individual, the group, and production. When all the factors are brought together, fitted in, and considered in the light of their relations to each other, many times the right answer almost "jumps out." The wise thing to do becomes clearer.

Certainly you, the man on the spot, are in the best place to know the right thing to do, for you have the most complete picture of the assembled facts. If you jump to conclusions, you make poor use of your strategic position. When you act, without evaluating the whole situation you are likely to have more difficult problems to handle later.

3. Take action.

While jumping to conclusions is a poor way to handle supervisory problems, putting off action may be equally unfortunate. A supervisor cannot "pass the buck" or he, himself, will be by-passed.

However, it is not "passing the buck" to recognize after full considerration of the problem that there are some situations which you cannot handle yourself. You also make a decision and take action when you size up a situation as one on which you need help, or recognize one which is not within your own job to handle and see that it is passed on to the person who does have thhe responsibility and authority.

In any action, timing must be considered - the wrong "time" can make iit the wrong thing to do.

4. Check results.

You must determine whether your action worked. If it did not, you must re-examine the whole situation and attempt to find what of importance you overlooked. Checking the results of action is necessary in every situation because conditions change, and what worked with one individual will not necessarily work with another.

"GOOD" SUPERVISION

One of the hardest parts of your job will be that of giving consideration to the importance of people in a problem situation and knowing what is imporrtant to each individual person. This is not simply a matter of determining what is right or wrong, or deciding what is just or unjust, but is a practical approcach to effective supervision. It may be thought to take too much time but day-bby-day use of this skill in dealing with people will save you time in the long run.

If you know your people well enough to build them into a smooth operating group you will be playing an important part in war production.

Originally issued
January, 1943

TRAINING WITHIN INDUSTRY BULLETIN SERIES

BUREAU OF TRAINING,
WAR MANPOWER COMMISSION

Washington, D. C.
December 1, 1943.

HOW TO INSTRUCT A MAN ON THE JOB

Your supervisors have much instructing of workers to do. This instruction is important to the worker, the supervisor, you, your plant, and to national war production.

Perhaps these workers to be instructed have been with you for years – or perhaps some have been transferred to your company – or many may be green – starting their first jobs.

Here are some ideas that will help your supervisors instruct their workers. They have been worked out by other supervisors who had the same job to do, just as the supervisors in your plant. They are easy to follow.

But – the supervisors, foremen, leadmen and gang bosses in your company will use this plan only as much as you demand that they use it. You cannot delegate orders for its use to others; you, the operating heads, are the ones who will make the use of this method accomplish real gains in the war production of your plant. It is YOUR responsibility to see they use it!

C. R. Dooley, Director,
Training Within Industry.

WHAT YOU WANT TO DO

Go back in your own memory. Remember how you felt the first day on a new job? – the time you were "stumped" by a new "wrinkle" on the job? – the time when you caused some scrap or re-work? – the time you got hurt? – the times when the boss corrected you and your work? Perhaps you liked the way he did it – or perhaps you didn't?

Any worker assigned to your supervisors feels the same way. He wants to make a good showing. You realize this. You are interested in four things:

1. Having the new worker come up to the quality and quantity requirements of production as quickly as possible.
2. Avoiding accidents which will injure the worker.
3. Avoiding damage to machines or equipment.
4. Spoiling as little work as possible.

Therefore, increasing the skill of supervision is a management responsibility.

HOW YOU CAN DO IT

Most of us just "jump right in" and start instructing or correcting a workman without much thought or planning. Perhaps your foremen do the same because:

- They know the job so well they've forgotten the things that "stump" the learner.
- They know it so well that they don't plan how to put it over.
- They know it so well that they don't pick out the key points – the knacks – the things that cause accidents, scrap, re-work, delays, and damage to tools and equipment.

To instruct a man right takes just a little extra time at the moment, but it saves hours and days of time later on, and prevents a large part of the scrap, spoiled work and accidents. The following plan is simple and easy to follow. Furthermore, it works.

- Before instructing, there are FOUR GET READY POINTS to watch. They can be done in a few minutes.
- When instructing, there are FOUR BASIC STEPS to follow. They really are no different than what your foremen may now be doing. But these steps help them do it well and thoroughly. At least they have helped thousands of others.

HOW TO GET READY TO INSTRUCT

Here are the four GET READY points which should be taken care of before instructing:

1. Have a time table.

   - how much skill you expect him to have.
   - by what date

   When the pressure is heavy for production and men must be trained, common replies are, "IT TAKES TIME," or "A LOT OF MISTAKES ALWAYS HAPPEN," or "LET 'EM LEARN."

   You can help production by making a Time Table for your workers. To make a TRAINING TIME TABLE, list the jobs under your supervision across the top of a sheet of paper – list your workers' names down the left-hand side – check the jobs each worker can do, opposite his name.

   Determine your IMMEDIATE TRAINING NEEDS in the light of turnover, performance, present work load, and future work load. Set yourself the dates when you will have trained your workers to fill these needs. Time is short!

   Make and use a Time Table for yourself and your workers.

2. Break down the job.

   List the important steps – pick out the key points. (Safety is always a key point.) You know that there are a few "key points" in every operation that cause accidents, scrap, delays,

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and damage to tools and equipment. If these key things are done right, the whole operation is right. If any one of them is missed the operation is wrong.

- If you put the job over to the worker with these key points made clear, he will really "get it."
- He will do the operation right the first time.
- He won't be "fighting" the work - making mistakes - getting hurt.

There is a quick, easy way to get the job clearly outlined in your mind. Fill out a "Breakdown Sheet" (sample enclosed) for any operations before you start to instruct the worker to do it. Do this on the job so that no key points will be overlooked. It only takes three to five minutes. This breakdown is for your own use. It is not to be given to the worker.

3. Have everything ready.

- the right equipment, materials, and supplies.

When you so much as touch a job in front of a worker, set the correct example. Don't use the wrong tool. Don't fumble. Don't make excuses. Don't miss a trick. When you have everything right, he is more likely to do the same.

4. Have the work place properly arranged.

- just as the worker will be expected to keep it.

The same thing applies here as above. You must set the correct example. Put his bench, desk, stock pile, or wherever he is to work in proper order before you start to put over the job to him. He won't do it if you don't do it.

HOW TO INSTRUCT

Here is what you should do every time you instruct a man or correct his work:

STEP I. PREPARE THE WORKER to receive instruction.

- Put him at ease. Remember he can't think straight if you make him embarrassed or scared.

- State the job and find out what he already knows about it. Don't tell him things he already knows. Start in where his knowledge ends.

- Get him interested in learning the job. Relate his job or operation to the final production, so he knows his work is important.

- Place in correct position. Don't have him see the job backwards or from any other angle than that from which he will work.

STEP II. PRESENT THE OPERATION.

- Tell him, show him, illustrate, one IMPORTANT STEP at a time. Be patient - and go slowly. Get accuracy now, speed later.
- Stress the key points. Make them clear. These will make or break the operation - maybe make or break him.
- Instruct clearly, completely, and patiently - but no more than he can master. Put the instruction over in small doses. He (the same as all of us) can't catch but six or eight new ideas at one time and really understand them.

STEP III. TRY OUT PERFORMANCE.

- Have him do the job - correct errors. Don't bawl him out or indicate that he is "thick" or "dumb".
- Have him explain each KEY POINT to you as he does the job again. A lot of us find it easy to observe motions and not really understand what we are doing. YOU want him to UNDERSTAND.
- Make sure he understands.
- Continue until YOU know HE knows. He may have to do the job half a dozen times.

STEP IV. FOLLOW-UP.

- Put him on his own. Designate to whom he goes for help. Make this definite - yourself or someone you choose. The wrong person might give him a "bum steer."
- He has to get the feel of the job by doing it himself.
- Check frequently. Perhaps every few minutes at the start, to every few hours or few days later on. Be on the lookout for any incorrect or unnecessary moves. Be careful about your taking over the job too soon, or too often. Don't take it over at all if you can point out the helps he needs.
- Taper off extra coaching and close follow-up until he is able to work under normal supervision.

Use this plan. You will find it amazing that such greatly improved results can come from such a simple plan.

Use it every time you need to put over a new operation, check a man's work, or change a work rocedure.

IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT!

ENCLOSURE:
Blank Breakdown Sheet.

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TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Washington, D. C.
June, 1944

HOW TO MEET SPECIFIC NEEDS

You are faced with meeting a definite responsibility your management has assigned. Training is an every-day part of getting out the work. A training program is simply management's organized attention to the problems related to introduction, instruction, and coaching the individual workers and supervisors.

Every supervisor has a part if the training program is well set up and coordinated. Your job is to help each supervisor to meet his responsibility. You can help him by doing some things for him, but the biggest help is to equip each supervisor with knowledge, tools, and skills which will enable him to make the most effective use of the manpower under his supervision.

The business of your plant is different. Even though the finished product is the same as in some other plant, there are many internal factors that control the effectiveness from a production point of view. These must be dealt with in your specific plans. Here are some ideas and methods of attack that have proven useful in many companies. They can be adapted to your program if you clearly understand the specific needs of your own plant which can be met through training.

C. R. Dooley, Director
Training Within Industry Service

WHAT TRAINING IS NEEDED IN YOUR PLANT?

Is your plant the same as it was in 1940? Or did you have a plant in 1940? If you are in an organization which has been in existence for some years, and you still work in the same building that you did before the war, are you making the same product? And do you have the same operators, craftsmen, and supervisors as you had two years ago? Or, were you a training director in the old days?

No war contractor in the country can say "yes" to all these questions. We all have new jobs, new equipment, new people. We have a training job.

Identifying Training Needs

Each plant has training problems of its own. The product it manufactures, the materials and machinery used, the men and women who turn out the work - all these combine to make the situation in your plant different. The training director of the plant is the one management holds responsible for looking closely at just what his own plant needs.

Planning a Program

In order to meet the needs of your plant, you must first spot the specific needs - the ones which need your attention now. Training is planned by deciding on the content, who will be trained, who will do the training and when, how, and where it should be carried out. But there is no training done

unless the training plan is sold to management and gets support not only from the top but down through the line organization. And, of course, all training must be checked for results.

No single training plan stands alone. You cannot start to train supervisors one day, and set up to produce skilled mechanics on the next, and arrange for a local vocational school to give related instruction without considering their effect on each other. And you cannot ignore the drain you put on supervision if you involve certain supervisors in too many parts of a program at once.

Your program must be coordinated to use the talent in the plant in ways which will help the line organization to get out production.

WHAT ARE "TRAINING NEEDS"?

The training director has to plan his own program - but he can check the common needs found in most plants. He then has a start on planning the way he will meet his own plant's needs. You get your best tips in terms of things that are interfering with production - turnover, accidents, rejected work, tool breakage, scrap, errors in following instructions, poor interdepartmental relations. These must be improved through organized training.

Induction of New Workers

Getting on to "the way of doing things" is one of the most important factors in getting the new worker off to a good start. Whether you plan it or not, every person whom the new employee meets when he first comes to your plant gives him some information or impression of the place where he is starting to work.

Are there things you want him to know? Are there rules you will expect him to live up to? Of course, there are. And do you suppose he wants to also know such things as just how he is supposed to conduct himself? Or when and where and how he gets his pay? What he should wear on the job? Whether there are any privileges or penalties about his new job?

Would you like him to get this information that he wants or needs from someone who will give it to him straight - or do you want to leave it for chance remarks, perhaps from some worker (who, though older in service, may not be too sure about the answers?)

An induction plan is just the simple giving of attention to the necessity of providing a definitely coordinated way for the new man or woman to learn what he needs to know, when he needs to know it.

Training of Non-Supervisory Employees

Information about the plant is not all that the new worker needs. He must learn to do a job which will contribute to the whole war production of the plant. Perhaps your plant used to have men who carried on a series of operations. When the new women come in, you may need to train each of them to do a single job.

You have to know what specific jobs are being filled by new people - and you have to know what it takes to do that job. Then too, these days, many of your experienced people are being transferred to jobs new to them. These are training needs easy to identify and to plan to meet.

Is every person in your plant working full time at his highest skill? Or does someone spend valuable time on jobs which could just as well be performed by a less-skilled person? Both good business and good relations require that we use people at their highest skills.

But using highest skills is not enough. Sometimes we have to "produce skills." Amazing production records can be achieved by engineering jobs so that relatively new people can be instructed quickly to perform individual operations. But the plant still needs skilled craftsmen. It would be shortsighted if we failed to build our supply of all-round skilled workers through well planned upgrading and apprentice programs.

Much plant time can be saved if the public training courses for preproduction and supplementary instruction are utilized. For example, on some jobs ability to read blueprints is necessary - and how to read a blueprint can be learned in a school before coming to work.

Many public training agencies are really doing production training where they set up shops which give the person new to industry familiarity with machines and operations. In order for a worker to be upgraded to a more difficult job he may need some training which he can get off the job. Do you know the facilities which are available in your community? Do the training agencies know what you need? And are your workers fully informed of how they can take advantage of these opportunities?

Improving a Supervisor's Knowledge of Work and of Responsibilities

Supervisors are not usually thought of as skilled workers, but to do their jobs they certainly need skills. Skills are not enough. Some things they just have to know. They must know their own work - what goes on in their departments - what it takes to turn out production - just what men and women in their departments must be able to do. And they must know just what is expected of them as management's representatives. They have to know what they are responsible for, and only their own plant operating executives can tell them.

A big training field here is often ignored by assuming that "the supervisors know, or else they wouldn't be supervisors." It is your job, as training director, to provide a way for them to acquire what they need to know.

Training Supervisors to Conduct Meetings

Do your supervisors ever have to get any information across to a group of people? Or do they ever try to get a department to accept some change? Or do you use supervisors to help on parts of various kinds of programs?

Skilled "conference leaders" are rare. They grow through experience. But some simple techniques are easy to acquire, and they are of value in any plant. Supervisors gain confidence through using them. If the people to whom you assign training responsibility cannot "put it across," your training program may fail.

Improving Instruction on the Job

Training Within Industry's program for Job Instruction is used in many war production plants. But is your plant getting full value out of this simple but effective way to break in a new man on a new job?

7-3980 P3 bu

Increasing the Supervisor's Skill of Improving Methods

Job Methods Training may be new in your plant. Would it help to see that the right people get Job Methods Training? And that they use it? It will helpp them to avoid waste of machine time, materials and workers' efforts.

Coaching in Everyday Relations on the Job

Job Relations Training will help your supervisors to acquire skill in workiing with individuals and groups. Constant use of basic fundamentals of good relatiions will also prevent many problems.

Selecting New Supervisors

Do you ever have to appoint new supervisors in your plant? Almost every daay, it seens. Yesterday they were operators - today they are in charge of units. Even if the plant has provided a way to train those beginning supervisors in thhe skills and knowledges that they need - is that enough? Are you sure that you are training the right people?

There is a simple means that the training director can use to spot among thhe rank-and-file workers those who are the best bets for the fulfilling of supervisory responsibility. Sponsoring and using such a plan is a definite part of a comprehensive training program.

ORGANIZING THE PLANT PROGRAM

When you have identified the training needed in your plant, and planned wayys of training to meet those needs - you still must organize your plan into an overall program. There may be a man who is the very best in the plant to get aa new person off to the right start, who is splendid in working with the public schools in planning related instruction, who really knows just what is expectedd of a supervisor in this particular plant. Are you going to use him for all those jobs? You probably cannot.

You may have hundreds of new employees coming into your plant every week. There is much about your own establishment to learn. Are you going to give it all to them at once? Probably not. You may need production operators, and jobb instructors, and set-up men, and supervisors. Where do you get started?

Organizing a plant training program is simply planning WHO does WHAT, and WHEN and WHERE. What happens next depends on the understanding and backing thee program gets from the entire executive and supervisory staff.

RESPONSIBILITY FOR RESULTS THROUGH TRAINING

The LINE organization has the responsibility for making continuing use of tthe knowledge and skills acquired through training as a regular part of the operating job.

A STAFF group - (or often one staff person) - provides plans and technical "know how"; does some things FOR but usually works THROUGH the line organizatidon.

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OFFICE OF PRODUCTION MANAGEMENT

Labor Division
"Training within Industry"

Bulletin #2-B

HOW TO PREPARE INSTRUCTORS TO GIVE INTENSIVE JOB INSTRUCTION

Many companies have found it possible to organize effectively the training of new employees and experienced production workers in new skills so that the learning time is spent on the job on production work under actual shop conditions. On-the-job instruction is given by foremen, lead men, or, where large numbers of men need to be trained at one time, by special instructors.

Some companies have set up training sections separate from the regular production shop, using the output of such sections in the regular manufacturing process. Whether the instruction is given in production shops or in separate training sections, it is necessary to equip those selected to do the instructing with an organized knowledge of production operations and the ability to impart it to others.

In this bulletin are recommended the essentials for the preparation of instructors. It recognizes that modifications must be made to meet varying needs in different situations.

C. R. Dooley, Director
Training within Industry

MAKING INSTRUCTORS

"Instructor" is used here to mean foreman, lead man or workman who has a major or full-time responsibility for breaking in production workers to new jobs.

Individual plant requirements in respect to the number of instructors, time available for training and degree of teaching skill necessary on specific jobs, will naturally vary. Job training covers a wide range, from an hour or two required to "break in" an employee on a simple, repetitive job to months for more difficult and complicated skills. There are four phases or steps usually followed in developing instructors:

1. Selection of those to be trained.
2. Arrangements for their training.
3. Content of the training program.
4. Supervision and follow-through.

1. SELECTION OF EMPLOYEES FOR TRAINING AS INSTRUCTORS

This is the most important step in the process since the ultimate success in training production workers depends upon the ability and skill of the job instructors. The following are important considerations in the selection of employees for training as instructors:

Personal aptitude should be given equal weight with job skill. It is common knowledge that good mechanics do not necessarily make good teachers. A genuine liking for working with people and an ability to express themselves clearly, patience and ability to get along with different kinds of people are important.

Recognized skill in the job to be taught. The degree of instructing skill required on any given job is governed to a large extent by the simplicity or complexity of the job.

A willingness to accept this kind of responsibility.

Some companies have used general intelligence, teaching aptitude and personality tests as aids in the selection of candidates for training.

2. ARRANGEMENTS FOR TRAINING INSTRUCTORS

There are two sources through which trained instructors may be developed.

Under company auspices. If there is not already a supervisor of training within the company, one or more supervisors should be selected and trained to take up this responsibility. An outstanding foreman, engineer or junior executive might prove to be a good man for this work after he has had some practice. Visits to plants where such instruction is being carried on and help by a training specialist from another company would be useful in launching a program. Some State Universities and State Vocational Education Departments are manned to give assistance in training a supervisor to carry on this kind of work.

Usually it is desirable to release from other duties those selected to devote full time to the training of instructors, although in some companies the responsibility is taken over in addition to other duties. Elements of time, convenience, and number of instructors to be trained will be controlling factors.

By outside agencies. Some State Departments of Vocational Training offer courses in how to instruct on the job and are prepared to conduct classes for job instructors within a specific plant, or to hold classes for men from several plants at specially agreed upon central locations.

It has been found that the training of job instructors can best be done in groups of 8 to 10. Suitable quarters, away from the job should be arranged. Most companies have found it desirable to release men from all job responsibilities during the training, permitting them to give full time intensive attention to learning how to instruct.

3. CONTENT OF TRAINING PROGRAM

The scope of the training given and length of the training period will vary.

For example, the machine operator who will break in new workers on his kind of machine may require only 12 to 16 hours of training on how to instruct. The training in this instance would embrace the fundamentals of analyzing the one job he is to teach and supervised practice in how to quickly cover the key points of each operation with a new worker.

On the other hand, the full time instructor, who is responsible for the instruction of a number of new workers on several jobs requires a greater degree of teaching skill which may take 30 to 48 clock hours for him to acquire.

A typical program of instructor training, containing the major principles, is outlined below. It will not always be possible or even desirable to apply this entire pattern to all situations.

A. JOB ANALYSIS FOR INSTRUCTION PURPOSES

The purpose here is to develop:

Ability on the part of the prospective instructor to make an analysis of the job to be taught. The experienced man often overlooks details of the job, which, because of his intimate knowledge, have become "second nature" to him. He must look carefully at every detail of a job from the beginner's viewpoint before attempting to teach it.

Ability to recognize and pull out the key operating points or "tricks of the trade" which are most vital to the successful performance of each operation.

Judgment as to the degree of detail to which it is necessary to go in breaking down a job, depending on the complexity of the operation to be taught and the knowledge the learner brings to the job.

These objectives can best be reached by requiring each member of the training group to analyze one job he will teach, under the guidance of the leader. This is done both in the conference group and individually with each trainee who makes an analysis of a job with which he is familiar out in the shop. A general discussion and comparison of analyses is then held with the group to bring about a common understanding of the technique.

Most of such analyses include all or part of the following:

Notes of the steps or operations necessary to do the job;
Special words used in talking about the work, the product, the tools, or doing the job;
Special precautions to insure required quality: ("getting it done right the first time")
Notes on waste prevention, either of tools or materials;
Safety and health precautions necessary for the learner to know in doing the job;
Notes on the troublesome points where the learner must exercise his own judgment;
Supplementary information such as how the product is used, and how his part ties into other operations.

B. PLANNING THE INSTRUCTION

Each prospective instructor is required to make notes of a simple plan for putting over instruction which he is going to give. One or more of these units is tried out in a practice teaching situation (see below) and each demonstration is followed by review and discussion. Using the job analysis as a base, decision must be reached regarding:

What fundamentals must be driven home.

In what order the operations can best be taught.

What must be done to build up satisfactory output after operations have been learned.

What facts must be given to the learner about the job and when.

C. TEACHING THE JOB

The new instructor must be helped to understand the teaching process.

The conference leader puts on sample demonstrations, involving real teaching situations to make clear each of the three following major requirements. The group analyzes and discusses what the leader has done.

(1) The steps through which the instructor leads a learner.

In the process of teaching any part of a job, the new worker is only conscious of acquiring new knowledge and skill and is not aware of the four steps through which the instructor carries him:-

First, the learner's attention and interest is secured;

Second, the learner is shown how to do that part of the job;

Third, the instructor lets the learner try to do it, correcting mistakes before they become fixed in ineffective work habits;

Fourth, the learner is put on his responsibilities but is closely watched by the instructor until he has gained skill and speed and confidence.

(2) How the instructor puts across to the learner the ideas he must know to perform each operation.

(3) How the instructor checks to see that the learner understands clearly.

D. THE BEGINNER'S LEARNING DIFFICULTIES

It is necessary for the instructor to identify some of the learning difficulties inherent in jobs, how they may be classified, and their effect on the new worker in making it hard or easy for him to become proficient. There are at least six kinds of these learning difficulties:

Confusion over complex details.

Understanding the main idea.

"Unlearning" old habits.

Catching the "knack".

Getting the "feel".

Developing speed, ease and confidence.

Prospective instructors are placed in the position of "green" learners. The conference leader gives several teaching demonstrations, using simple units of instruction of real interest and new to the learner. Group discussion follows each demonstration to help the new instructor to get the "green" employee's point of view.

E. PRACTICE TEACHING

Each new instructor must be given the opportunity to gain confidence that he can apply out in the shop what he is learning. Nothing is more helpful than practice under constructive coaching. Let him demonstrate how well he can apply the principles of job instruction in a practical teaching situation.

Throughout the entire period of training and as often as possible, each prospective instructor is required to teach a worker new to the company and to the job, one or more complete operations under the observation of the group and the leader. The operations to be taught are selected by the prospective instructor and are actual jobs which are a part of his own shop work. They are of such a nature that the complete operation can be covered with the learner in 20 to 25 minutes. How to use a file correctly, how to read a micrometer, how to perform a simple assembly operation, are examples of the type of instruction units used. The learners are usually sufficiently "green" to make it possible for their interest in learning something new to be genuine.

After each demonstration, through group discussion, the work of each prospective instructor is constructively criticized and evaluated.

4. SUPERVISION AND FOLLOW THROUGH ON THE JOB

It is not sufficient to turn out a corps of trained instructors. The training of individual workers begins only at this point and there are several steps that may be taken to insure the instructor's effectiveness in getting workers into production quickly.

(a) Provision should be made for a proper wage differential between the rate for instructors and the top rate of the work classification for which they are training workers. This policy provides an incentive to experienced men to attain competence in instructing new workers.

(b) Special instructors, skilled men trained as instructors or trained lead men can safely handle five to ten men on production work. A check sheet or record of the workers performance, the speed with which the worker builds up skill, his method of doing the operations, rejects and spoilage and injuries are points to be closely checked on the job by the supervisor of training as well as by production supervisors.

In most companies, special instructors report administratively to the foreman responsible for production and are a part of the regular production force, but are under the technical direction of the staff training supervisor.

(c) Frequent visits to the shop where the new instructor is working should be made by the training supervisor.

(d) After instructors have been on the job for a month or two, they should be brought back for a half day conference in which instruction techniques are reviewed in the light of actual teaching experience. Periodic conferences of this type will help the instructor to improve his effectiveness.

(e) Periodic reports regarding the success of new workers thus trained should be made to upper management. Having authorized the program, executives naturally are interested in its progress and success.

* * * * * *

Unless the program results in a saving of at least one half the time usually taken by the old haphazard watching, telling, or just "showing 'em how" methods of breaking in new workers the instructor training program has not been well planned or carried out.

Washington, D. C.
December 1, 1940

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

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HOW TO SELECT NEW SUPERVISORS - A 6-STEP PROGRAM

Every plant is always on the lookout for more supervisors. And, in rapidly expanding plants, the need for supervisors constantly becomes more acute. Good supervisors are hard to find. YOU HAVE TO TRAIN THEM.

Management is dependent on supervisors in order to reach the big group of workers in the plant, but not every worker wants to be a supervisor. Some actually refuse to take the responsibility. They do not want to give orders to their friends. Many are incapable of becoming good supervisors even though they would jump at the chance. They cannot plan, or follow through, or adjust their thinking to supervisory problems. Some people just can't quit "doing" and begin to direct others "to do." Poor judgment, slowness, indecisiveness, inflexibility, or annoying mannerisms prevent them from ever becoming effective supervisors.

Where, then, do we find men and women to train as supervisors? They must be discovered among the ambitious workers who are willing to pay the price of leadership, and who can work well with their associates. You spot them in the rank-and-file of your own plant.

Many plants give careful attention to the selection of top supervision, but "just appoint" quite casually the first-line supervisors, the ones who really are in closest touch with the workers who get out production. First-line supervisors are particularly important because they make up the group from which higher supervisors are most often selected. The greater a supervisor's responsibility, the more costly are the mistakes if the man is not really fitted for supervisory work.

Management delegates much of its responsibility to supervisors; hence, initial selection is of prime importance. Selection of men and women for supervisory positions is a definite responsibility of management, but assistance can be gained and the selection procedure improved if the recommendations of present supervisors and, sometimes, of both the union and individual workers are enlisted.

To find one leader you must get the facts about a number of possible candidates. You must choose carefully, because a mistake is costly. Personal prejudices and favoritism must be avoided. You must find a potential supervisor and train him. And don't fail to give him a feeling of PERSONAL SATISFACTION in his new job.

C. R. Dooley, Director
Training Within Industry.

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PICKING THE WORKER TO BE TRAINED AS A SUPERVISOR

In slow moving times, supervisors often were created overnight by someone who said, "Tomorrow you take over the department. Now you are a foreman." Many of them turned out to be excellent. In easy-going times, the boss does know his men. But when five, twenty, or a hundred new supervisors are needed over a relatively short period in a rapidly expanding organization, there is little time to get well enough acquainted with workers to pass judgment on their qualifications for supervisory jobs. Under present conditions superintendents, and other company executives, don't know individual workmen well enough to take such "shots in the dark."

A more systematic method is needed. Selection is improved when the method includes participation by the present supervisors in the nomination of candidates; use of a uniform, objective measure of ability; and group judgment of candidates.

The selection program described in this bulletin has been outlined from industrial experience. It will help to spot the men and women who will be likely candidates for supervisory responsibility. The procedure is simple. And, it works.

EXPLAINING THE SELECTION PROGRAM TO MANAGEMENT

This selection program must be completely understood by top management and it must have management approval. Management must see that the approach is outlined to the operating heads. Responsibility for this selection program must be assigned to one operating or personnel man who will see that it is carried through all stages of operation.

Basically, there are six steps.

1. Present supervisors are asked to nominate candidates for additional supervisory jobs. It may also be feasible to ask for nominations from the workers and from union representatives..

2. Each supervisor's nominations are discussed with him.

3. A committee made up of an operating man, a personnel man, and another representative designated by management considers the records in order to prepare a list of candidates. Each candidate on this list is interviewed if he is not known to the members of the committee.

4. A standard objective measure, such as a test, is used to get information about the ability of each candidate.

5. The selection committee reviews all the qualifications of the candidates.

6. Those judged to be qualified for supervisory training are selected. This will provide, in addition to immediate needs, a reserve to meet future demands.

At the time that management decides to undertake this selection program and assigns the responsibility for operating it, a follow-up procedure

to make sure it is carried out must be agreed upon. Follow-up responsibility must be assigned to a specific person.

1. STARTING THE SELECTION PROGRAM

The need must be explained to the present supervisors. They must be assured that their own jobs will not be unfavorably affected, and their co-operation must be won. To accomplish this it is necessary that an operating official who carries weight with the men call the supervisors together and inform them about the new method. He will need to:

a. Explain the need of having new supervisors coming along.

b. Raise question, "Do we have any workmen in the ranks who might become good supervisors, if properly trained?"

c. Emphasize that there is no thought of displacing present supervisors. It is part of their jobs to be on lookout for new talent. We can't afford to overlook good material. "All of us need understudies. You cannot move up until there is someone to take your place."

d. Make assignment: "Consider all the men in your departments. Don't talk to them about this topic, but think about them. Jot down names of all the men who you feel might have supervisory abilities. Do not suggest men from other departments - we want information about the men you really know something about from intimate working relationships. You know which men take the lead, and whether the others in the group accept this or resent it. You know, too, which ones learn new jobs most quickly."

e. Discuss personal qualities which are required of supervisors. Think in terms of the whole plant and what is expected of a supervisor.

f. Remind them that, while the supervisor has to know the work, the best operator is not necessarily the best supervisor, but he must have enough operating ability to merit respect from the workers he supervises.

g. Set a specific time to have list of names handed in.

Sometimes supervisors consciously or unconsciously stand in a man's way - if he is a good operator the supervisor does not want to lose him. Requiring each supervisor to name "two or three" will shake good men loose.

If management wishes to get nominations from the union and from individual workmen, the same steps of explanation should be followed.

2. GETTING INFORMATION ABOUT SUPERVISORY CANDIDATES

Not all the men and women who are suggested will be good possibilities. It is necessary to get more facts about those nominated. The supervisors who suggest names will be able to furnish much unrecorded detail.

The person assigned to head the selection committee will need to discuss with each supervisor the persons whose names he has suggested. Ask him to tell you why he nominated the person, but don't put him on the spot. This is a confidential fact-finding process, not a debate. Consider the following:

a. What is the man's work record, including accident record and absenteeism as well as quality and quantity of production turned out? Does he know the work?

b. How does he get along with other workmen on the job?

c. Has he domonstrated such supervisory traits as ability to break in new men or to get men to cooperate with him on jobs? Do men go to him for help?

d. How does he conduct himself on the job?

e. Does he take the lead outside the plant - does he organize community events or sports?

f. Does he have ideas? Make constructive suggestions for improvements?

g. Has he been included in any training programs? How did he get along?

Some names may be withdrawn by the supervisors at this stage, and these persons need not know that they have been considered and judged unsuitable.

3. ROUGH SCREENING

Get personnel records (including health and safety records) for all men still on list, in order to have them considered by the selection committee. This committee should be made up of an operating executive, a personnel man, and another representative designated by management. One of these will be the man responsible for running the selection program. (This selection committee will be most effective if it has occasional "new blood.")

a. Search the records. Look for controlling factors, but do not give weight to "stale boners" that should have been forgotten long ago.

b. Retain the names of all those who look promising.

c. Consider the supervisor who made the nomination - can you go along with his opinion?

When these records are scrutinized, some additional workers will be considered unsuitable for supervisory development. These need not know that they have been rejected unless such information is considered advisable for personal development.

The surviving candidates who are not known to the members of the selection committee will be interviewed briefly to find out if possible about recent instances in which they have taken the lead.

4. GETTING INFORMATION FROM SUPERVISORY CANDIDATES

Judgment so far has been largely based on opinion, and there may be litttle uniformity in the records that are available for consideration. Selectioon is improved if the method includes the use of a standard, objective meaasure such as a test.

Some plants will already have records resulting from a recent test whiich has been used for all employees. In other plants production reports by worrkers may give a measure of ability to handle figures and follow written instrructions. In others it may be suitable to call the selected group of candiddates together and give them a simple test in order to have a standard meaasure for all. There are many simple tests available commercially. Some commpanies prefer to draw up their own tests, using real problems from the plant. Tweenty questions of the following type will make up a useful test:

> If a rigger's hourly rate is 90 cents, what will it be if it is increased 10 per cent?
>
> What is the cost of a square foot of copper if a piece $1\frac{1}{2}$ feet by $1\frac{1}{2}$ feet costs 45 cents?
>
> A bin holds 200 cubic feet of lime. If the bin is 10 feet long and 5 feet wide, how deep is it?
>
> Divide 144 hours equally among three shifts.
>
> If time and a half is paid for all time over 8 hours, how much will a man get for working 11 hours if his hourly rate is 60 cents?
>
> A warehouse is four stories high, and the interior measurements are 50 by 200 feet. How many square feet of floor space?
>
> How much more interest do you get in a year on $200 at 4% than on $200 at $3\frac{1}{2}$%?
>
> Divide: $45.3\overline{)921.402}$
>
> If a wire 20 inches long is to be cut so that one piece is 2/3 as long as the other piece, how many inches long will the shorter piece be?
>
> How much cheaper per pound is sugar at 12 pounds for a dollar than at 9 cents a pound?

When a plant draws up its own test forms, it usually is desirable to chaange the figures in the test with successive groups of candidates. Most commmercial tests have alternate forms for repeated use.

Whatever test form is used, it is important to remember that the score is only one of the pieces of recorded information on which a decision is based.

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Do not set a minimum or "passing" score - tests are used only to indiicate those in the group who have the most ability to do simple figuring and to understand written directions. No time limit should be set - each person should be allowed to complete the form.

All candidates who are to be tested should be called together to hearr about the selection program direct from management, rather than through rumorrs.

An operating executive, who has prestige with workers, explains the purpose:

a. Company is looking to the future.

b. More supervisors are needed.

c. Somebody has thought that each man in the room might make a good supervisor.

d. Supervisors have "headaches" but there are also rewards.

e. Not every man in the room will be a supervisor.

f. We need more facts. A practical test will be used to supplement the other records. It will help to indicate those who may become supervisors, but it is not going to be the only point on which the decision is made.

g. Even if you aren't selected, this isn't going to hurt you. Every man doesn't win every race he enters.

There may be some who will indicate at this time that they are not interested in being considered for supervisory positions. If they wish, theyy should be allowed to leave before the test is given.

After the tests are scored they should be added to the records concerning the persons. Tests should not be returned. A score may be given to an individual if requested, but not until after the decision as to supervisory appointment has been made.

5. REVIEW OF ALL CANDIDATES' QUALIFICATIONS

The selection committee will now review each man's record separately::

a. personal history data

b. test record or other uniform measure

c. other records that indicate the calibre of the man

When the committee considers this final assembly of records, it will be important to consider particularly the man's work history. Has the man haad the kind of experience needed on the new assignment, or can he get it quicklyy? Remember that a man may make a good supervisor on one kind of work but not another. Consider present and prospective supervisory openings.

The selection committee should look for these qualities and abilities and the knowledge considered essential in your organization. In general, the best prospects are the men who:

a. have appropriate experience

b. are level-headed, intelligent, trainable, and willing to learn

c. have the personal characteristics you want of supervisors in your plant

d. have demonstrated their ability to get teamwork

e. are acceptable to their associates and present supervisors

f. are willing to take the responsibility of supervising

g. handle their personal affairs intelligently

h. can adapt themselves to change

Men who fail in one or more of those qualifications are doubtful prospects.

6. SELECTING THE PEOPLE FOR TRAINING

The selection committee now has the facts on which to base its decisions.

a. Accept or reject each man on list as a prospect for supervisory training. Decision should, if possible, be unanimous.

b. If a sufficient number of likely prospects are "voted in" at this stage, the doubtful cases can be held for future consideration.

c. If there is disagreement, so that no one gets unanimous endorsement, then further consideration should be given to nominees where there is majority approval of their qualifications.

d. If possible, observe the man breaking-in a new worker on the job, before final choice.

e. Let each candidate know where he stands.

This method of picking men indicates who will profit most from sound supervisory training. The next steps are to place him properly and see that he gets good training. Don't just allow him to pick up information as to the supervisor's job in a haphazard manner. Remember that you do not have a ready-made supervisor.

7-2861-P7-Bu

Some of the men may be appointed supervisors at once and get their training on the job. Others may be put in pre-supervisory training courses. Still others will be held as a reserve or pool. And there will be some who you know never will be appointed at all. All these candidates must be told just where they stand.

The "supervisory pool" must not be built up beyond the number needed within a reasonable time, such as three to six months. If there is not any turnover in the pool, the whole selection plan may be unpopular.

In order to follow the supervisory pool principle, it is necessary thatt:

a. management have some idea or estimate of the number of supervisors needed over some such period as three months

b. all promotions to supervisory positions come from the pool

WILL THIS WORK IN YOUR PLANT?

If your plant has an extensive employment procedure, you may already have recent test records that give you an objective, uniform measure - you may already have the information needed for Step 4.

If you do not have many supervisory positions to fill, it probably willl be best not to set up a "pool" for if there are no appointments made from it in a reasonable length of time, the men will be more dissatisfied than if they had been told that someone else got the job and no more are open.

But, in any plant, it will pay to anticipate needs and go about supervisory selection in an organized manner rather than to look at it as "getting a man for the new shift tonight." And for any opening, it will pay to look at the qualifications of more than one man.

GAINS THROUGH GOOD SELECTION

Planning and foresight will pay dividends. The whole purpose of this method of picking men to be trained as supervisors is to identify the steps that will inventory the abilities of workers, so that "hidden talent" is not overlooked. A man's appearance and manner may not be impressive, yet he may have excellent supervisory ability.

No one person in the plant can possibly have all of the essential factts necessary to make "spot" decisions regarding the potential abilities of a man. Two or three men, familiar with the problem and acquainted with the men available for promotion, can do a better job of selecting than one can alone. The judgment of one supplements the others.

A review of the record and a discussion of the needs and facts prevent hasty decisions. Men with supervisory ability can be found among rank-and-file workers. That is the major source of supply. The men who will make good supervisors are there. This method gives you a simple way to turn the searchlight on the group and to find them.

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Washington, D. C.
April 1945

"HOW TRAINING CAN BE DONE - METHODS, AIDS"

CHOOSE THE BEST METHOD

	Use It	Don't Use It
DEMONSTRATION	To show a manipulative operation. To clarify principles or theory. To show use of equipment.	When note-taking is required. In place of practice.
PRACTICE	To develop performance skill. To help in retaining information.	On a theoretical problem but only on a real one.
DISCUSSION	To make people think. To emphasize factual material. To warm up or review. To give reasons.	To fill in time. Without good leader. To present new material. In place of practice.
CONFERENCE MEETINGS	To get benefit of previous experience. To get opinions and help. To modify opinions. To develop understanding. To get acceptance.	Unless people are already informed about subject. As initial training. In place of practice.
LECTURE MEETINGS	When presenting informational material or explanatory material. Supplemented by visual aids.	For material with many details. For training in a skill.

HOW TO CONDUCT A PLANT MEETING

Meetings are common in any plant - when two or more people get togeither, it's a meeting. One person - the person who wants to get something out of tthe meeting - needs to have a definite purpose for the meeting, needs to have planned what will be discussed, and needs to have ready any material required for the discussion.

Two few meetings are planned on that basis. Consequently, the meetings are meaningless, get no results, become unpopular, and may be attended only occasionally.

Meetings can serve a useful purpose - they can be the method of informing, or consulting, or training, or getting acceptance.

There are four steps in running a meeting:

1. Get Ready

   Define objective clearly. List points to cover.
   Plan exhibits or aids.
   Find suitable place. Be sure everything is ready.

2. Open the Meeting

   Start on time.
   State what you are trying to accomplish.
   Find out what is already known about the subject.

3. Guide the Discussion

   Question group and individuals.
   Get across ideas with reports, samples, etc.
   Discuss possible solutions.

4. Close the Meeting

   Make sure of common understanding about "next steps."
   Finish on time.

All meetings, small or large, will be improved if they are systematically planned in this way.

1. Get Ready

Define clearly just what you are trying to accomplish. If there iss no objective, do not hold the meeting. Decide what materials - samples, moodels charts, and reports - should be taken along, and get them ready. Find a suuitable place for the meeting - a room that is large enough, where lighting annd ventilation are adequate, where you will not be interrupted or disturbed byy noises.

Set a time for the meeting - do not make it any longer than necessary. Consider the reason you are having the meeting. Is it worth the collective time that will be spent on it? Notify people who are to attend - give them time to arrange to come, but do not make the interval so long the meeting is forgotten. A very important meeting may make a personal, last-minute check of expected attendance worthwhile.

Before the time set for the meeting, check to see whether equipment is on hand. Plan timing of an intermission if the meeting is to last more than two hours.

2. Open the Meeting

Start the meeting on time. If you habitually wait for stragglers, you penalize those who are prompt.

State clearly just what you are trying to accomplish. This is fundamental to concentrating attention on some specific item which you want understood, accepted, or opened up. Put your objective on the blackboard - refer to it, hold to it. Find out what members of the group already know about the subject - fill in gaps.

3. Guide the Discussion

Use a questioning technique. Direct questions to individuals, not to the group. Do not "call on" a member, or introduce the question by his name. Keep all the members following you by using a name at the end of the question. Avoid questions which can be answered by "yes" or "no." If some members are reluctant to participate, direct leading or obvious questions to them.

Don't let any one person monopolize the discussion. Be ready to break in with a thank you - and have a question for another member ready. If one member stands out alone, get other members of the group to answer his questions.

Find out whether anything interferes with accomplishing the objective - and what it is. Guide the discussion toward concrete evidence and specific factors you can do something about. Discuss possible solutions. List these interferences and solutions on the board. Talk while you do board work - and do not block the view of the whole board while you write. Summarize frequently.

Use models, samples, and other materials to illustrate ideas.

4. Close the Meeting

Keep the discussion on the subject of the discussion, and watch your schedule so you can close on time.

Make sure that there is a common understanding about "Who is going to do what, and when." Put this on the board - then put it on your list of work to do if the importance or complexity makes it advisable to give every member of the group a written report on action decided or policy accepted.

7-6728 P3 bu

SELECT THE MOST EFFECTIVE AID

MOTION PICTURES (silent or sound)	- Use when overall view or impression is needed, when noise of actual operation would prevent explanation, when actual use or operation of product is at a distance, when operation has to be slowed down or stopped for explanation, when viewing operation would hamper production, when it is safer to get preliminary view from film.
FILM STRIPS OR SLIDES (silent or sound)	- Same as for films except motion is not required or desirable, or expense or lack of equipment prevents use of motion pictures.
PROJECTIONS	- Where all of group needs to look at same drawing, chart or photograph simultaneously and leader wants to focus all attention on one specific point at a time.
ILLUSTRATIONS, CHARTS, DIAGRAMS	- When process flow is important, when trends need to be emphasized, for comparative statistics.
SAMPLES	- To show real object.
CUTAWAYS	- To show structure of opaque object, relative position.
MOCK-UPS	- When finished assembly covers parts, when finished product is not available, when safety is involved.
MODELS - LARGE SCALE	- Large enough to permit handling, identify small parts.
MODELS - SMALL SCALE	- Permit operation without using large quantities of material, make a whole operation visible.
EXHIBITS	- Show finished products, kinds of scrap, results of poor work, effect of breaking safety regulations.
BLACKBOARD	- For sketches, diagrams, outlines, definitions, directions, summaries, assignments.
BOOKS, MANUALS, PAMPHLETS, INSTRUCTION SHEETS	- For standard information and guides, manufacturer's information, reference, background.
CARTOONS, POSTERS	- To arouse interest, attract attention.

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Washington, D. C.
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IMPROVING SUPERVISORS' KNOWLEDGE OF THE WORK

There is no substitute for a thorough knowledge of the very work that the supervisor directs. The technical nature of the work is constantly changing, as products and processes change. Naturally, work that goes by the same name differs from company to company. It differs between departments.

Everyone admits that a supervisor in a rolling mill must know the steel business, but that is not enough - he has to know it as it applies to his own plant, in his own department. A supervisor in a coal mine must know coal mining, and he has to know his own plant's problems and methods of coal mining. A supervisor in an accounting department must know his organization's accounting practice, not just standard accounting practice found in text books. It is squarely up to each plant management to see that its own supervisors have this specific knowledge of their work. Naturally the same holds true for every business and every department, covering every feature of technical or operating work throughout the Nation.

Many companies have had thoroughly capable supervisors fail because they lacked the proper knowledge of their work. This need not be. All that is necessary in a given plant is for someone to have a plan and see that it is followed.

That "someone" in each company is the manager, or some other person to whom management delegates this responsibility. Following are a few suggestions as to "plan." Naturally, each company should develop its own plan according to its own problems and the needs of its own supervisors.

C. R. Dooley, Director
Training Within Industry Service

WHERE PLANNING IS NEEDED

Here are a few of the more common circumstances which point to supervisors who need to know more about their work:

1.. New Supervisors

Many new supervisors are being appointed to replace men who go in the army or who are transferred or retired. Perhaps the new supervisors know all the operations and have the required technical background -- and perhaps they don't. Sometimes the new supervisor is familiar only with those operations on which he worked. Likely he has only passing familiarity with the much larger group of operations for which he is now responsible.

2.. Experienced Supervisors on New Jobs

Many times "old hands" are placed on new jobs in new or converted plants or in different departments. Often it is assumed that years of service alone mean adequate technical knowledge even though the experience is limited to one or two operations.

3. Changed Jobs

Countless thousands of jobs have changed because of the necessity of making new products out of new materials on new equipment. Usually the newer the product or materials or equipment, the less certain and less standard the operations. Often these are the very jobs that change again and again, as perhaps metallurgical changes in the materials are developed and as new operating procedures are found necessary.

SOME WAYS OF GIVING SUPERVISORS KNOWLEDGE OF THE WORK

1. Instruction from Superior

If, for example, a foreman is newly promoted to his job, sometimes the general foreman can, over a period of time, give him a thorough knowledge of the work. This is the ideal arrangement, for everyone does and should look to his boss for guidance and direction in just about everything connected with his job.

Often, however, instruction from a superior takes the form of guidance on day-to-day procedures only. The superior may not have the time -- or may think he hasn't -- to instruct the new supervisor in many details. Hence, leaving the training job solely up to every superior isn't an assurance that it will be done. How much the "boss" can do -- (or will do!) -- should be carefully considered. However, it is sometimes surprising how much "the boss" can help when he is required to do so by the "big boss."

2. Instruction by Outside Specialists

Outside specialists can help to a marked degree. A common example of such is the help provided by most machinery and equipment companies. Most of these companies will arrange for one of their representatives to come to the plant when the equipment is new and stay for a period ranging from a few days to several weeks. Full advantage should be taken of all such offers.

In other cases a specialist from the ordnance department or from the original contractor company will spend time with a supervisor on the job. Specialists from laboratories or observers from the field of battle provide two more kinds of help. Every company can readily assemble the list of such outside specialists who might be used.

The training itself should be done right on the job. There is no better method than having a specialist spend a great deal of time right in the shop discussing with the supervisor the detailed problems of the job.

3. Planned Work Experience

Often a supervisor -- new or experienced -- may need to be instructed in performing several manual jobs in order that he can direct them well. This instruction is to give him familiarity with the operations themselves. Of course, there is much more to know about a job than the details of mechanical operation. But where these skills should be learned, there is no substitute for "learning them by doing them."

Many a supervisor feels he is "stepping down" when he runs a machine for a few days or a few weeks. He feels he has lost his status in the eyes of his workers because the workers can perform the operations better than the boss..

Any supervisor who wants to succeed, however, must accept this risk. Actually he runs no risk at all if he is the "right kind of a guy." Workers admire the boss who is willing to "get his hands dirty" in order to "know what he is talking about." Doing this very thing has "made" many a successful supervisor.

4. Experience in Another Plant

Sometimes a supervisor can be sent to another plant for a short time to pick up some technical knowledge or operating procedures. Thousands of plants have cooperated with each other on this basis already. Even peace-time competitors in many cases have helped "make a man" for each other in war-time.

5. Job Breakdowns

A sure-fire way of getting thoroughly informed as to operations or procedures is to have supervisors make an accurate, written outline of each operation or process. No particular form of breakdown is necessary. However, any supervisor who has used either the Job Instruction or Job Methods form of breakdown would certainly understand thoroughly those operations he "broke down."

Much time and money has been wasted by supervisors who just observed and talked about a manufacturing process and "thought they knew" all about it. Companies have been known to send supervisors to observe the same process four or five times before they caught all the operating details. If these same supervisors had been required to make a complete breakdown of the process, they would have caught all the details and tricks of the trade the first time.

Making breakdowns at first may appear to be something of a task. However, they become easier to make with practice. Their use saves so much time, effort, and costly mistakes that the making of them is justified a hundred times over.

6. Manuals

The use of manuals is common, and they have many values. Manuals are available from a variety of sources, or may be written in the plant. However, not even the most complete manual should ever be regarded as the sole answer to a supervisor's need for technical and operating information.

7. Help from Engineers

Help from one or more of the company's engineering groups is often the most valuable that a supervisor can receive. Some engineers take a "high-brow" attitude toward the "poor shop man." On the other hand, some shop supervisors consider themselves the only "practical" men. They look down on the engineers. Getting the two groups close together will produce outstanding results.

Engineers can help in several ways. The best way of all is for an engineer to spend time in the shop with the operating supervisor right on the job. An engineer can also hold a series of meetings with plant supervisors where he presents technical knowledge or answers questions.

Getting appropriate understanding that the engineers are expected to help plant supervisors is essential. Top management must see to this. Engineers will find that this is not a "one-way" process. They, too, get extremely valuable help from shop supervisors.

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8. Plant Conferences

In some companies there are regular staff meetings to pass along information at each executive and supervisory level. In other companies these are occasional. In still others there are special meetings about company products and manufacturing methods. The question of "how many meetings" is a vital one. The only answer is to hold as many meetings as are necessary to be sure that every supervisor knows every single thing that is necessary for him to know in order that he do a top-grade job.

9. Supplementary Instruction

Extremely valuable supplementary instruction may be received from the engineering colleges and universities as well as the vocational schools. If the plant is not near one of these institutions, very often an extension program can be especially arranged. If a company desires certain special courses to be developed, and the number of persons justifies such a course, these schools will often develop such special programs. This supplementary instruction is of value to the plant only if the program meets the supervisors' specific needs.

RESPONSIBILITY FOR DEVELOPING SUPERVISORS

Acquiring knowledge about supervisory work should not be left to the supervisor's initiative. There are those who argue that leaving it "up to each person" is one of the tests of initiative, one of the ways of showing who is worthy of promotion.

Unfortunately things do not always work out this way. Often the thoroughly able supervisor will not take the initiative; he may think of it, he may not know what he needs, he may not know what is available. Sometimes he feels that such action might be improper or that he would be regarded by his fellows as selfish and "forward." Conversely, a supervisor with limited abilities but with devastating ambition may voluntarily seek more information about the technical side of his work, be disappointed if he does not get recognition -- and resent it.

Improving supervisors' technical knowledge should be planned just as carefully as any other company program. The management should let it be known that every supervisor is expected to keep abreast of the technical demands of his job and that a plan is to be followed in accomplishing this end. Someone in the company should be designated to counsel with each executive and supervisor concerning the needs of each of his subordinates. He should also help each executive and supervisor plan for the development of each subordinate. In larger companies this person is usually the training director. In smaller companies it is often a production executive who gives part of his time to this work.

The procedure between the training director and a line executive is simple. Together they set down what a subordinate now knows about the job. Then they set down what he needs to know. Next they decide which of the above suggestions -- or others -- should be used. The line executive is then ready to call in the subordinate, go over the plan with him, and see that the subordinate gets the required knowledge.

WAR PRODUCTION BOARD

Labor Division
Training within Industry

Bulletin #7

INCREASING WAR PRODUCTION THROUGH EMPLOYMENT OF WOMEN

Employing women in war industries in increasing numbers is inescapable, but should not be looked at as a substitute procedure. Employing a woman for any job that she can do, or can learn to do, will release a man either for work not suitable for women or for active armed service.

The employer who has never had any women employees on his force may need to be reminded, in some cases, that a new woman worker is just a new worker. Careful selection should furnish women who are good prospects - the same as men. New women need training - so do new men. They are entering a new environment, but so are farm hands who take factory jobs.

The place of women in industry has been well established since the last war. One-fourth of manufacturing workers are women, and a number are in technical or managerial fields. Employers who think that the employment of women introduces some mysterious element into the factory situation need to be reminded that they have known women all their lives - secretaries, nurses, waitresses, saleswomen - and that women from all these groups will inevitably become a part of the war production effort.

This bulletin draws on the experience of a number of industries where women workers have had an important part for many years, and on the experience of British war production.

C. R. Dooley, Director
Training within Industry

WOMEN IN THE LABOR SUPPLY PICTURE

In many industrial centers there already are labor shortages. In general, women will not add to the supply of skilled labor, but they do present a large and promising source of workers for a wide variety of operations. In England it has been necessary to require young women to take part in the war effort, either through auxiliary service or actual productive work in factories. There are many women who now need to earn wages. Curtailment of civilian production releases numbers of women with varying degrees of skill. These women are available for retraining for war production work.

SPECIAL FACTORS TO CONSIDER IN EMPLOYING WOMEN

Introduction of women workers in industries or plants where they have not previously been employed will often mean that women will actually be put on "men's work." It will not always be a simple placement and training process - but, when the snags are anticipated, British experience shows that remarkable results are achieved. Management needs

to give advance, and immediate consideration to some general facts - some limitations, some advantages, and some changes in facilities and equipment.

State Laws Regarding Women Workers

Many states have "protective" legislation which sets standards for working conditions for women, limits hours (both as to length and time of day), and restricts occupations. In some states provisions have been made to permit modification of standards where necessary for war production. State laws covering a particular plant should be checked as the first step. The Industrial Commission or the State Secretary of Labor can supply specific information.

Physical Limitations of Women Workers

There are some physical limitations for women. As a means of overcoming them, mechanical aids may be used - for example, in load-lifting, roller conveyors and pedestal lifts are helpful. Tools may need to be scaled to women and benches made lower for assembly workers.

Safety and the Woman Worker

The safety records of women are better than those of men, but there are special hazards to be recognized. It may be necessary to require the wearing of protective clothing. The safety engineer who selects caps and jumpers will do well to consult with the women who will wear the clothing - his interest may be in finding a cap which will insure that hair will not catch in a machine, while the employee may also be concerned about a cap which will protect hair from dust and not ruin a new hair-do. It is poor practice to select clothing which requires disciplinary action to enforce wearing or which causes resentment.

Absence Records

Women's records for days-off are worse than men's. They are not altogether due to illness but frequently to unavoidable home responsibilities. A "flying squadron" of utility operators who can fill in on numerous jobs is a common solution.

Labor Turnover

Women do not change jobs as often as men. Good supervision, satisfactory working conditions, adequate wages, and fair treatment will hold women to their jobs and thus, by decreased turnover, reduce overall training time.

Supervision

Many persons will advocate the employment of a woman personnel officer to work on problems connected with working women. This is based on the assumption that there is an innate and intangible difference between men and women as employees that will be beyond a man's experience. This is not the best basis for the introduction of women

to the production shop. Women are entering war production on the same terms as men, even if it is necessary to make physical segregation in a few respects and to separate groups in individual situations. Their relation to the personnel department is the same as new men. Women have a useful place in personnel offices, but not necessarily as concerned with women employees.

The woman who is new as a factory employee is making a change. Skilled personnel people should handle cases relating to people new to industrial situations.

Women as first-line supervisors can sometimes handle routine departmental problems concerning women more easily than men, and women can train women. The opening of even minor supervisory positions to women will provide a promotion incentive. However, if women supervisors do not correspond in authority with men in similar positions, the employees may be inclined to by-pass the woman supervisor and take their problems to the man whom they feel is "the boss."

SELECTION AND PLACEMENT OF WOMEN WORKERS

All women will not, of course, make productive factory employees. The selection procedure should include particular attention to the background brought to the job - education, training, and aptitudes. The housewife who is untrained and perhaps free for only part-time work may move into civilian production and service operations, releasing for full-time war production employment, women who have had regular work experience.

Even in the comparatively short time of current war production, there are a number of instances of the value of certain backgrounds of work requiring deft hands - girls who were needle-workers or hairdressers have proved specially adaptable for precision metal work. With good training, they work to tolerances measured in ten-thousandths of an inch. Jobs requiring "feel," such as minute assembly and adjustment, are examples of jobs where placement of women has produced particularly good results, in many instances better than men.

A common opinion is, "Women have no mechanical ability." It is more accurate to say that they have little "mechanical familiarity." Women are not accustomed to working with wrenches and drills, but the lowered level at which training begins also means an opportunity to begin training with correct procedures - they do not bring "picked-up" bad habits to the job.

TRAINING FOR WOMEN THE SAME AS FOR MEN

Well-planned training for women who have been selected and placed according to good standards will provide a large, productive new force and give perfectly satisfactory results in every respect.

Get ready for the job. What is the work? Should it be broken up into several jobs, to be taught separately?

7-8927 P3 bu

Consider the work place, the tools. Are changes needed?

Find out what the new workers already know. Is some preliminary instruction needed in shop arithmetic or blueprint reading? Would advance familiarity with small tools help? Will "shop terms and procedures" need special explanation? What pre-employment training is available?

Train on the job. Does instruction given on the job include supervised tryout and follow-up? Does the new employee know where to go for help?

Provide supplementary instruction. Does the plant provide training to round-out background and increase skills? Are there public vocational courses available?

Upgrade to higher skills. Are women being moved on to more difficult jobs as they show ability, in order to make maximum use of their best skills?

JOBS FOR WOMEN IN WAR INDUSTRY

To turn again to British experience, women are working successfully on these jobs:

assembly	lathe work (including the use of calipers and micrometers)
band-sawing	optical grinding and polishing
boring	press operating
crane operation	riveting
drilling	turning
grinding	welding
inspecting	

To summarize the overall problem, the contractor must:

1. Consider the employment of women with an open mind.
2. Recognize that there is, as always, a training job to do.

Washington, D. C.
March, 1942

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

June, 1943

INTRODUCING THE NEW EMPLOYEE TO THE JOB

The Importance of a Good Introduction

A new place to work means adjustment for any individual. It is easy for the new man to jump to wrong conclusions. The supervisor has an excellent chance, during this impressionable period, to establish a good relationship with the employee and see that he gets accurate information about the place where he is working. He can get the new man off to the right start.

This process of making the new employee feel at home, often called induction, goes on at the same time as job instruction, and both have the same aim - making the new man a productive part of the business. It should not be assumed that instruction will do both jobs. The success of instruction may depend on the quality of the introduction process.

C. R. Dooley, Director
Training Within Industry

PROCESS OF INTRODUCING EMPLOYEES

Some of the questions that arise in introducing employees are: Can all employees be inducted alike? What attention should be given to a transferred or rehired employee compared to the new employee? Is a systematized plan desirable? Many of these questions can be answered only in terms of conditions in the organization. In general, however, the process of introduction can be considered under these headings:

1. handling the initial interview
2. providing the employee with information about the company
3. providing the employee with information about his work
4. assisting the employee to adjust to his fellow-workers

These phases of the introduction process are interrelated and, therefore, should be regarded just as a sequence of steps. As a reminder of the information to be given and to enable the supervisor to know what he has covered when it is necessary to contact the employee at intervals, a checklist may be provided (see Exhibit A).

1. Handling the Initial Interview -- The supervisor's first approach to the employee will have considerable influence on his future attitude toward the supervisor and the company. The supervisor should draw upon his experience in dealing with men and be careful to see that he does not make statements and actions which can be misinterpreted. The supervisor should use this opportunity to begin to establish a friendly attitude which, of course, should carry over beyond the induction period.

Many supervisors follow these interviewing steps:

a. Beforehand, the supervisor considers what he already knows about the new employee and tries to picture how he would feel if he were in his shoes. His objective is to make the employee feel that in him he has a supervisor who will consider impartially but sympathetically whatever problem he may care to talk over.

b. If conditions make it possible, the new employee is brought to the supervisor's desk where he is greeted and asked to sit down. In any event, the best conditions for an uninterrupted interview are sought.

c. To arrive at common ground and establish mutual interests, the employee is asked a question or two on matters of general interest. This usually gets the employee to talking and enables the supervisor to learn more about him without appearing inquisitive. He may have to try several different tacks to establish a mutual understanding and avoid putting the employee on the defensive.

d. The supervisor decides the proper time to start giving the employee information about the company and the employee's job. The employee himself may lead into this through questions.

e. In closing the interview the supervisor should leave the employee feeling that he can come back at any time.

2. Providing the Employee with Information about the Company in Which He Works -- The employee must be provided with accurate information about the company and its policies, as early as practicable after he reports to work, in small enough segments to be retained. It is desirable to see him several times at intervals during the first two or three days. One of the main considerations is to cause the employee to feel proud of the company and to give him an appreciation of its policies and what they mean to him. The new employee should be urged, when he wants to know more, to come to the same source for information - the first-line supervisor.

When possible, some information should be given to the employee by his department chief, in order to widen the employee's knowledge of the organization and to give the department chief an additional way of knowing his people. It also provides the chief with an opportunity for checking the introduction of the employee. There should, however, be an understanding among those concerned as to precisely what information the department chief will give the employee. It is desirable for the department chief to provide that information on which it is desired to place special emphasis.

The supervisor is the best judge of the extent to which he should make a detailed explanation of any one item. Ordinarily the broad objectives of the company programs, what they mean to the employee, and how he can take advantage of them, will suffice. Care should be exercised to see that the employee does not feel subjected to pressure to participate in company social or service activities.

7-1681 P2 bu

EXHIBIT A
INDUCTION GUIDE

FOR--(Employee's Name)..... EMPLOYED.....(Date).....	Information given by	Date
1. Has he read the employee's handbook?		
2. Does he know safety rules, practices, and the reporting of accidents? Where to get first-aid treatment? Has he read the safety handbook?		
3. Have factory regulations - smoking, fire drills, absences, etc. - been explained?		
4. Does he know location of lockers and washrooms?		
5. Does he know location of cafeteria? Lunch and rest-period times?		
6. Was he informed about time-clock and clock-card rules?		
7. Does he know about passes - temporary, permanent, package, etc.?		
8. Does he know organization of department, division, and shop? Names of supervisors?		
9. Does he know what the department manufacturers?		
10. Has he been introduced to fellow-workers, and told about company activities?		
11. Have company personnel policies been explained?		
12. Does he know how his pay is figured - piece-rate, incentives, learning period, overtime, payroll deductions, etc.?		
13. Does he understand the benefit or insurance plan?		
14. Does he know where to get information? Help?		

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3. Providing the Employee with Information about His Work -- A distinction should be made between this phase of the induction process and job instruction. The objective here is to assist the employee to adjust to his new situation through providing him with background information. Much of this information, of course, such as location of the lockers, will have to be given shortly after he reports for work. Information about work is of immediate concern, and should be given clearly. If he is new to the job he may be unfamiliar with terminology. He should be encouraged to ask questions. Most new employees want to make a good impression and are afraid of not "catching on" rapidly.

4. Assisting the Employee to Adjust Himself to His Fellow-Workers -- Most individuals who are new to an organization are concerned over how they will be accepted by their fellow-workers. Getting off to the right start with fellow-workers depends greatly upon the employee himself, but the supervisor can see that the new employee is introduced to those in the vicinity of his work and, in some instances, it may be desirable to tell the employee a few interesting things about his fellow-workers. When it is possible to make a choice of several work locations for the new employee, the supervisor can give considerations to the interests, sex, age, and other characteristics of those near whom he might be placed. It might, in a few instances, even be desirable to change a seating arrangement so that the new employee will be located in a group where he will get along satisfactorily.

Most supervisors, through knowing their people, develop a "feel" for such conditions. Helping the employee adjust to his working group will not ordinarily be done by one single action, but will involve many follow-ups over a considerable period of time. It has been said, probably rightly, that the supervisor's work in helping employees adjust to each other is never finished.

SYSTEMATIZING THE INTRODUCTION PROCESS

When new employees are being taken into an organization, some systematized procedure should be adopted. This may involve doing certain things on certain days, or it may be nothing more than delegating responsibility for inducting the new employee.

For any induction procedure, a plan is wise - and it must be a plan made from the viewpoint of the man with his needs in mind. These points should be considered:

Purpose

1. What should the new employee get from the introduction process?
2. What should the company get?

Content

1. What routines and regulations must be explained at once? What, later?
2. What company information must be given?

Method

1. Is process on individual or group basis?
2. Will a plant or department trip be included?

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Responsibility

1. What is supervisor's part?
2. What is employment office's part?
3. Who will co-ordinate and check complete coverage?

Timing

1. What is the order in which information is to be given?
2. How much shall be given at one time?

By using the guide which appears as Exhibit A as a check-list for the kind of information to be given the employee, a plan suitable to the organization can be worked out in a short time. Such a plan can probably be best prepared through the collaborative efforts of the supervisors in the department where it is to be used. A detailed time schedule, such as Exhibit B, may be desirable.

After a guide has been drawn up, it is good practice to set down the elementary information needed. For example, not until the new man knows the location of the time-clock, how it is operated, where to put his card, the occasions on which he is required to register, the rules about registering only his own card, and what to do if he makes a mistake, can the subject of time-clocks be considered adequately covered.

It has been estimated that from six to twelve hours is needed to provide the employee with basic information about the company and his job. It is obvious that, if many new employees are coming to the plant, supervisors may not have this much time to give to many employees individually. Although personal contact with the new employee is highly desirable, it may be necessary during such periods to use group methods to convey some of the information about the company and the employee's work to new employees. Regardless of the number of new employees, however, the supervisor should not fail to make some personal contact with each of them as early as possible, doing what he can to assist them in feeling at home.

INDUCTING THE TRANSFERRED OR REHIRED EMPLOYEE

It is obvious that neither as much information nor attention will ordinarily have to be given to the rehired or transferred employee as to the newly hired employee. Sometimes there is a failure to explain clearly to an employee the reasons for his transfer, an item of great concern to him. Although his former supervisors and the employment office are responsible, his new supervisor can well afford to make sure that he understands, and that any doubts he may have are expressed and talked over as early as possible. It should be remembered that this employee will have to pass through an adjusting or orienting period similar to the new employee. Supervisors should not take it for granted that these employees are familiar with the company or their work, yet to assume they are totally ignorant of the organization may provoke resentment. In addition to these general kinds of information, the rehired or transferred employee usually wants to know, promptly, what grade of work he is assigned to, what his rate and probable earnings will be, what shift he is to be working, and similar information that shows him at once "where he stands."

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EXHIBIT B
SAMPLE INDUCTION OUTLINE

WHEN AND WHERE?	WHAT AND HOW?	BY WHOM?
First Day		
1. On arrival in plant	1. Introduction to working supervisor	1. By person who did hiring
2. On arrival in department 15 minutes	2. Information needed in daily routine a. Any information he may need on getting to and from work, parking regulations, etc. b. Starting time, lunch period, quitting time, hours per week c. Review of compensation items (when he will be paid, where, how, how much) c. Opportunity for questions	2. By supervisor
3. Following preliminary interview one half hour	3. Meeting other workers, getting to know layout of building a. Trip through department with general explanation of product b. Show him where he is to work and meet neighboring workers. c. Show him his locker and location of wash rooms. d. Show him the time-clock, his card, and explain regulations. e. Tell him about any special rules on smoking, leaving department, etc.	3. By supervisor or group leader
4. Following 3 till noon	4. Job Instruction	4. By person who is to handle training
5. Noon	5. Show location of cafeteria and eat lunch with new man. a. Show him noon recreation facilities. b. Introduce him to others.	5. Neighboring worker
6. After lunch till half hour before quitting time	6. Job Instruction	6. Trainer

WHEN AND WHERE?	WHAT AND HOW?	BY WHOM?
7. Half hour before closing	7. Give pass, explain use, and regulation in case of absence. Give booklet of rules, regulations, and policies to be read at home.	7. Supervisor
Second Day		
1. At a convenient time, one half hour	1. Review booklet of rules and regulations, policies. a. to see that he understands subjects covered in booklet b. to give opportunity to ask questions	1. Supervisor
2. At a convenient time 15 minutes	2. Check through job with safety engineer and review policies and procedures on safety.	2. Safety Engineer
Within First Week	1. Meet with other new men from other departments a. Tour plant. b. Have organization set-up described. c. Have mutual benefit and other organization plans described.	1. Personnel Department
Fifth Day	1. Interview with supervisor - off job a. Find out what he is thinking. b. Clear up any misunderstanding. c. Give opportunity for questions.	1. Supervisor

SUMMARY

Introducing an employee means that the supervisor obtains background information about the man as well as giving him information and assistance. The supervisor needs to know his men, and the man needs to know the department so that he will feel at home. It is during this period of adjustment that the employee's future worth to the company is largely determined. The employee's immediate supervisor should see that this is done regardless of whether complete authority has been delegated to him or a systematized plan, involving the employment office, has been adopted. The supervisor's success in introducing employees will depend largely on the care and insight with which he approaches this work. His experience in dealing with people should be constantly drawn upon for help.

Bulletin #8

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Washington, D. C.
December, 1944

KEEPING SUPERVISORS INFORMED ABOUT THEIR RESPONSIBILITIES

This bulletin outlines a simple plan for giving training to supervisors in the knowledge of their responsibilities. It is prepared especially for those managers who have the point of view of "anticipation and prevention" rather than "discovery and correction." It is for those who look beneath the surface for the solution of their supervisory problems.

It is important that every supervisor know not only the technical phases of his job but also just what his responsibilities are. Since these responsibilities change, it is necessary that the plan for keeping supervisors informed of their responsibilities shall operate continuously.

No plant management can hold a supervisor responsible for things about which he has not been informed. This plan is only an outline for a method of approach within which any company can develop its own program in detail according to its own problems and needs.

C. R. Dooley, Director
Training Within Industry

RESPONSIBILITY FOR DEVELOPING SUPERVISORS

The one dominant influence in each supervisor's life, just as in the case of each employee, is his boss. Therefore, the best supervisory training in the world is having a "good boss." The most successful supervisory development program is one sponsored and directed by top management.

This plan enables each officer and supervisor to keep his subordinate supervisors informed in an organized manner. Without some organized plan this job is easily crowded out of the picture by the rush and pressure of production duties, and the supervisor acquires information about his responsibilities in a haphazard manner through costly experience.

It is essential that the program start at the top - the president or at least the general manager of a given plant.

Basic Features of the Plan

1. Acceptance by top management of the responsibility for adequately informing supervisors of their responsibilities.

2. Regular conferences at each organizational level, sponsored and directed by line organization supervisors.

3. Frank discussion, free consultation, and appropriate action concerning company policies and individual responsibilities, at each level.

4. The appointment of staff training men to direct the routine of these meetings, see that arrangements are made, notices sent out, agenda prepared, and reports issued.

SETTING UP THE PROGRAM

The initial meeting should be called by the chief officer of the company or plant and attended by his immediate staff and other key people who are regularly associated with them.

The object of this meeting is to discuss the need for keeping supervisors informed about their responsibilities and the details of a proposed program for accomplishing this objective. The head of the company or plant should be the active chairman of the meeting. A training man should assist the head of the company or plant in laying out the agenda for the meeting and should attend the meeting to lend assistance in planning the later program.

Naturally there are certain problems outside the ability of the supervisor to do anything about, but practically every company problem - plant extension, equipment, finance, quality control, shipping schedules, costs, labor relations, etc. - should be touched upon to determine at the very outset the scope of the responsibilities to be carried at each successive layer of supervision. Succeeding conferences on lower levels should each determine definitely just what responsibilities are to be carried by each supervisor on each level of supervision.

The extent to which it appears that information about responsibilities is lacking on the various levels of supervision will determine the character of the program both as to agenda and as to schedule of meetings.

1. Periodic conferences for supervisors on all levels

   Each chief supervisor should meet regularly with those supervisors who report to him. Experience will determine the length and frequency of these meetings but usually one and one-half hours every two to four weeks will be found satisfactory. The best meetings are those for which the agenda is brief and the conference itself kept informal. The make-up of the conferences must be determined according to each company's organizational structure. The criterion is to have in each meeting only those supervisors who have comparable responsibilities.

   As soon after the close of the first meeting as convenient, each member of that conference should call a conference of those supervisors reporting to him and carry on the discussion. This process should continue on down the organization until the first-line supervisors have been reached.

   This pattern is of vital importance. It includes regularity of meetings, topics to be discussed, promptness of sending out reports, promptness of following up unfinished business, and many other items vital to steering the effectiveness of the program as a whole.

   The head of each group should always be present unless unavoidably detained, and should never fall into the habit of leaving the conduct of the meeting to a substitute because of casual reasons. A conference which is not worthy of the attention of the supervisory chief is not worth holding at all.

2. Conference leadership

   The executive or supervisor in charge of each group at each level must be chairman of his own conference. If he is a trained conference leader he may lead the meeting himself. If not, he may turn the leadership of the

discussion over to a conference leader or he may open and close the meeting and tactfully participate in the discussion but depend upon the conference leader to keep the discussion on the topics and on schedule.

Some supervisors inexperienced in leading conferences will quickly become familiar with the procedure and gradually take more detailed responsibility. Others will never attain competence in using the conference method, and still others may leave the conduct of the meeting to a conference leader just so they can participate in the discussions and otherwise aid the program as a member of the group. Whatever procedure is used, there must never be any doubt that the supervisor in charge is responsible for the conference and is personally going to see that it is a success - that everyone who attends feels it was worth his time.

3. Agenda of current supervisory problems

The responsibility for determining the agenda rests with the conference conducted by the top executive. The company training director, meeting with groups at all levels, maintains the thread of continuity and sees that action is not delayed and that proper reports are rendered. In some plants, particularly in large companies, there may be a full-time "conference secretary."

The first step in planning a series of agenda is to find out what policies have already been set down in writing. This applies particularly to employment, training, hours, wages, transfers, promotions, seniority, layoff, discharges. Plans include insurance, hospitalization, sick benefits, vacations, savings, stock purchase, incentives; procedures include methods of wage payment, routine for reporting accidents, method of arranging transfers. rules, covering a wide field, are often not too sharply defined.

Quite often there is nothing in writing on a supervisor's responsibility as to scheduling, cost, maintenance, quality, waste, interdepartmental relationships. Each supervisor should also have knowledge of legal restrictions and regulations which effect plant operations. There will be written material on union contracts and often on a grievance procedure.

Each conference, from the top down, places on its agenda two kinds of topics:

Those which concern its own particular group only.
Those which should be brought to the attention of other groups.

Many conclusions arrived at must be passed on to groups of lower levels for execution but many of the conclusions and some of the opinions should be passed up to groups on higher levels for their information. One of the major results of this program of conferences is to help break down the natural insulation between an executive and the entire structure below him.

Many suggestions and opinions, if tactfully presented, will be welcomed by the higher officers and supervisors of a plant or company.

4. Subject-matter for supervisory conferences

The top conference group usually develops enough topics for discussion by groups at lower levels to keep the schedule overcrowded. The problem generally is how to eliminate topics for discussion rather than how to suggest them. Additional topics also flow upward.

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However, for those who may not know how to get started, the following suggestions may be helpful:

Open the meeting by presenting one or two topics which have been handed down by the next higher group.

If the company has no written industrial relations policy, each group may develop initial drafts of such policies and present them to the higher groups.

If the company has well defined written industrial relations policies, each group may periodically review them in the light of current requirements and recommend changes to the higher groups.

Recent government rulings, labor agreements, and training programs, affecting responsibilities of supervisors may be discussed.

Questions of customer service, quality, maintenance, inspection, store-keeping, shipping, often involve misunderstanding as to just which supervisor is responsible for what.

The most effective method yet discovered by which areas of responsibility and authority can be clearly determined, overlapping of functions eliminated, internal jealousies dissipated, and procedures clarified and simplified is through group analysis of the responsibilities of the individual departments, divisions, supervisors, and getting group agreement to conclusions. Frequently such agreements clear up difficulties between departments of different levels. There is scarcely an activity that is not materially changed and improved when subjected to the group analysis of the various executives and supervisors affected.

All supervisors need up-to-date information concerning the company, its products, and its technical processes. This is easily accomplished by inviting company specialists to attend group meetings and lead discussions in their respective fields of activity.

5. Importance of first-line supervisors

Having general matters start with the chief executive group and flow down through the various conferences sometimes requires special help when such matters reach first-line supervisors. If there are two or three work shifts, it may be impossible for the foreman to meet with all his supervisors. Perhaps it is not possible to remove all supervisors from the floor at one time. In such cases the foreman or general foreman can delegate to a conference leader the responsibility of conducting some of the conferences for him.

It is important to remember that information tends to lose its clarity and significance as it passes from one level to another. A report from the first-line supervisors telling their understanding of the information should be asked for when there is any possibility of misunderstanding.



MANAGEMENT AND
SKILLED SUPERVISION

The TRAINING WITHIN INDUSTRY PROGRAM

BUREAU OF TRAINING

WAR MANPOWER COMMISSION

June 1944

T. W. I. PROGRAM AND POLICY

The Training Within Industry Program was established in August 1940 by the National Defense Advisory Commission and was continued under the Office of Production Management and then the War Production Board. By Presidential order on April 18, 1942, Training Within Industry functions were made part of the War Manpower Commission. T. W. I. operates as part of the Bureau of Training.

Management is interested primarily in getting out increased and improved production. Supervision and training are sometimes regarded as separate functions, but they are actually concurrent with management. T. W. I. attempts to get this viewpoint accepted, and T. W. I. work deals exclusively with what management itself can do to train its supervisors.

T. W. I. Advocates

It is recommended that all war production plants give balanced and appropriate attention to the following phases of in-plant training:

1. UPGRADING of all classes of personnel as their experience and abilities warrant, through planned job progression, job rotation, and intensive supplementary instruction both on and off the job. Each plant should take stock of the talent and experience of its own personnel before employing new men and women.
2. Development of PRODUCTION SPECIALISTS through intensive instruction on the job in basic operations.
3. Development of all-round SKILLED MECHANICS through trade apprenticeship, in accordance with Federal standards, separate from production worker training, for the purpose of developing a predetermined, limited number of all-round journeyman mechanics.
4. Development of SUPERVISORS through careful selection, assignment of supervisory duties of increasing responsibility, and provision for related organized help through discussions and conferences, under both plant and outside auspices, dealing with methods of instruction, methods of developing better ways of doing a job, methods of improving working relationships, and knowledge of responsibilities.

T. W. I. Conducts

The Training Within Industry Service conducts intensive programs for newly appointed and experienced supervisors and those responsible for in-plant training. There is no authority to enter a plant on any basis other than with management's cooperation. The programs for supervisors require 10 hours of basic training, and for training directors 40 hours.

Job Instruction gives the supervisor practice in how to "break in" men on new jobs.
Job Methods helps the supervisor to simplify and improve methods of doing a job.
Job Relations gives the supervisor practice in how to promote teamwork.
Program Development shows training men how they can develop their own in-plant programs by giving them intensified coaching in a method of planning, operating, and improving plant-wide training programs.

Organization

The Training Within Industry Service has a field force with offices in 24 districts throughout the United States and in Hawaii. They are staffed by training and personnel specialists, many of whom are loaned by their companies for part-time or full-time work. Headquarters and field offices have advisers from both management and labor.

MANAGEMENT AND SKILLED SUPERVISION

The job of getting out war production and of operating essential services is being done by many millions of men and women. The managements of war plants, and other industries such as railroads, and services such as hospitals, depend on their supervisors to get results through these millions of people. The supervisors are the *key* persons in the war production, home-front job.

Since the management responsibilities of supervisors are greater than ever before, the importance of skilled supervision increases daily. At the same time, the difficulties of supervision are mounting—unskilled new workers and changing designs. Many supervisors themselves are new—they have not had time to "grow into their jobs." Under these conditions, every step that management can take to improve the skills of supervision yields important results.

T. W. I. urges management to make the spotting of *all* its training needs the responsibility of a specific person within the organization, and helps him to plan training to meet these needs.

The Supervisor's Five Needs

In order to do the job management expects, the supervisor needs knowledge of his work and of his responsibilities, and must constantly use the skills of instruction, of improving methods, and of working with people.

Knowledge of His Work

In order to properly direct the people under his supervision, the supervisor himself must know what doing the particular kind of work involves, what materials and equipment are needed, how the job is done, what standards must be met. Since jobs differ from plant to plant (and even from department to department), only the management knows just what work knowledge is needed by its various supervisors.

Knowledge of Responsibilities

To the people who work under him, the supervisor *is* management. Unless he clearly knows just what management expects him to pass on to the workers, what plant policies control his actions, and where he fits into the organization, he cannot be an effective supervisor.

Training supervisors in company policies and relationships is an important phase of improving the quality of supervision—and it is a job which each company must carry on for itself, because individual plants are as different as individual persons.

Skill in Instructing

There are over twenty million workers on important jobs which are relatively new to them. There is no time to be wasted on "coming up to production rate," and scrap and rejects must be reduced to a minimum. The supervisor *must* be able to get *a* person to do *a* job, quickly, correctly, and conscientiously.

This problem is common to all supervisors in all plants and can be met through a common approach. Through industrial experience a 4-step method has been evolved. When the supervisor learns this method and uses it, he develops *skill in instructing*. T. W. I. helps management to provide its supervisors with this skill through the Job Instruction program. Management support is essential to insure the acquiring of this skill.

Skill in Improving Methods

Thousands of jobs are being done the way they are done simply because they got started that way. Many people never question the current method—just keep on in the old way. Engineers and technicians develop big improvements, but cannot reach into many operations on single pieces of work which are repeated over and over and which, bulked together, make up the real volume of productive effort.

The development of improvements does not require inventive genius—but it does require the questioning attitude of the supervisor who knows the intimate details. The *skill of improving methods* can be learned. It provides a way for tremendous savings through making more effective use of manpower, machines, and materials. T. W. I. helps management to provide its supervisors with this skill through the Job Methods program. Management support is essential to insure the acquiring of this skill.

Skill in Working with People

Full productive effort comes only when the supervisor becomes the leader of his people, when he organizes them into a team and they work well together. In the past, supervisors have developed a *skill in leadership* through experience.

In wartime the situations which cause misunderstandings and grievances have multiplied, and the results of these delays are more serious than ever before. Supervisors must quickly learn to lead their people. T. W. I. helps management to provide its supervisors with this skill through the Job Relations program. Management support is essential to insure the acquiring of this skill.

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How the T. W. I. Programs Operate

Training Within Industry experience has proven that results come only when *daily* use is made of what has been acquired through basic training. Accordingly, T. W. I. programs are started in plants only when top management, as a result of spending the time necessary to understand the programs, sponsors the programs, prepares to operate them through the production organization, and demands results.

An important step in operating the T. W. I. programs is informing middle management—the persons who link top executives with operating supervision. They also must understand and accept the programs in order that the supervisors will appreciate the importance of using them.

In any plant, regardless of size, any job requires that some one person be made responsible for getting it done. Getting basic training in the T. W. I. programs accomplished and seeing that supervisors use what they have learned in order that continuing results will be obtained is a real job, and T. W. I. insists that the responsibility for this job be definitely assigned.

When these conditions have been met, the Training Within Industry Service makes its techniques available to any eligible establishment (the order of assistance being determined by the priority of importance to the war effort). T. W. I. trains a plant representative to put on the Job Instruction, Job Methods, and Job Relations programs. This preparation of trainers requires one week. T. W. I. provides the training outlines and simple instruction materials.

The trainer conducts a program by putting on five 2-hour sessions for a group of 10 supervisors. These sessions are to be put on daily or on alternate days. Since these programs are depended upon by plants to do a production job for them, T. W. I. urges managements to schedule these sessions during working hours, at plant expense.

In all three of the programs, the first session is devoted to the exposition of a 4-step method for supervisors to use. The other four sessions (8 hours out of the 10) are spent by the supervisors in practicing on their own problems.

If a plant is too small to be able to have a trainer from its own staff (in general, this means plants with less than 50 supervisors to be trained), T. W. I. will arrange for an outside trainer who can be compensated for his time through state vocational funds.

After the basic training phase of any one of these programs is started, T. W. I. representatives help the plant to set up procedures to give sustained support to the programs in order that they will be used and results obtained continuously.

Union stewards are eligible for participation in the Job Relations program, either in sessions put on by union trainers under union sponsorship, or as members of plant groups made up of both supervisors and stewards.

The Job Instruction Program

When a supervisor has to break in a man on a new job, he is interested in having him come up to quality and quantity requirements of production as quickly as possible, in avoiding accidents which will injure the worker, in avoiding damage to machines and equipment, and in spoiling as little work as possible.

In order to accomplish this, the supervisor needs to get ready to instruct. He must:

Have a time table—
how much skill you expect him to have, by what date.
Break down the job—
list important steps.
pick out the key points.
Have everything ready—
the right equipment, materials, and supplies.
Have the workplace properly arranged—
just as the worker will be expected to keep it.

These "get-ready" points provide the basis on which the 4-step method of instruction is started:

STEP 1—PREPARE THE WORKER.

Put him at ease.
State the job and find out what he already knows about it.
Get him interested in learning job.
Place in correct position.

STEP 2—PRESENT THE OPERATION.

Tell, show, and illustrate one IMPORTANT STEP at a time.
Stress each KEY POINT.
Instruct clearly, completely, and patiently, but no more than he can master.

STEP 3—TRY OUT PERFORMANCE.

Have him do the job—correct errors.
Have him explain each KEY POINT to you as he does the job again.
Make sure he understands.
Continue until YOU know HE knows.

STEP 4—FOLLOW UP.

Put him on his own. Designate to whom he goes for help.
Check frequently. Encourage questions.
Taper off extra coaching and close follow-up.

Throughout the 10 hours, the trainers stress: *If the worker hasn't learned, the instructor hasn't taught.*

When supervisors *use* the Job Instruction steps, break-in time is reduced, accidents decrease, and scrap loss falls.

Typical Results of Use of Job Instruction.

Steel company.—"In the past it has taken *6 weeks* to break in a man or woman in handling a traveling overhead crane. After J. I. training of instructors in how to break in people on a crane operation by following a breakdown sheet of the job, it now takes *6½ days*. This includes the proper operator maintenance of the crane."

Electric manufacturing company.—"One month after the J. I. program was started, reject tickets were reduced about *50%* in two departments with 2,500 workers."

Shipyard.—"A crew, originally of *85* men, now of *70* (49 of them women), is turning out *10%* more work than the original and larger crew did. Better method of training through J. I., effected this result."

Brass company.—"On one operation where 9,600 pieces were run per 8 hours, there was an average of *1,770* pieces of scrap. A J. I. key point reduced the scrap to *25* pieces, and further application of J. I. reduced this to *5* pieces in 20,000."

The Job Methods Program

Materials are growing scarcer, machinery is difficult to replace, and manpower is critical. Better ways to use available materials, machines, and manpower are developed when supervisors use the Job Methods technique:

STEP 1—BREAK DOWN THE JOB.

1. List all details of the job exactly as done by the present method.
2. Be sure details include all—
   - Material handling.
   - Machine work.
   - Hand work.

STEP 2—QUESTION EVERY DETAIL.

1. Use these types of questions:
   - WHY is it necessary?
   - WHAT is its purpose?
   - WHERE should it be done?
   - WHEN should it be done?
   - WHO is best qualified to do it?
   - HOW is the "best way" to do it?
2. Also question the:
   - Materials, machines, equipment, tools, product design, lay-out, work-place, safety, housekeeping.

STEP 3—DEVELOP THE NEW METHOD.

1. ELIMINATE unnecessary details.
2. COMBINE details when practical.
3. REARRANGE for better sequence.
4. SIMPLIFY all necessary details:
   - To make the work easier and safer.
     - Pre-position materials, tools and equipment at the best places in the proper work area.
     - Use gravity-feed hoppers and drop-delivery chutes.
     - Let both hands do useful work.
     - Use jigs and fixtures instead of hands, for holding work.
5. Work out your idea with others.
6. Write up your proposed new method.

STEP 4—APPLY THE NEW METHOD.

1. Sell your proposal to your "boss."
2. Sell the new method to the operators.
3. Get final approval of all concerned on safety, quality, quantity, cost.
4. Put the new method to work. Use it until a better way is developed.
5. Give credit where credit is due.

American industry today is the result of improvements. Many of these improvements have been made by specialists, or else by someone who had one "flash" idea that worked. This Job Methods technique stimulates *every* supervisor to look critically at all the jobs he directs—not just once, but repeatedly, as a part of his supervisory job.

Typical Results of Use of Job Methods.

Aircraft plant.—"An average of *12 hours* per plane was being lost in the installation and adjustment of the door-locking mechanism. Workers designed a new lock, accepted by engineering and management, with the result that perfect installation and adjustment can be made in about *20 minutes*."

Cement Company.—"An improved method for feeding cement sacks into a cleaner saved *35* miles of walking per day, 70 girl employees affected."

Warehouse.—"In the operation of wrapping 100-pound to 600-pound rolls of duck, a J. M. improvement resulted in a saving of *48%* in man-hours, a reduction in the department affected from *1,008* hours to *528* hours per 48-hour week, and eliminated one fork lift and truck. This improvement also eliminated skin infections from handling, and results in savings at the annual rate of *$300,000* in labor and material."

Can Company.—"(1) By a new method for testing cans, the girl now doing the job can handle *3* more machines and still have *2* hours left out of *8*. (2) In making solder, during busy times one man had to lift twice (once up 4 feet on to a truck and again off the truck into a smelter) a total of *8,000* pounds, or 4 tons, of material per day. By a new method, all this lifting is eliminated. (3) A new method of handling and cutting dunnage lumber results in a *25%* saving in cost and eliminates 6 trips of 900 feet each way per carload of cans."

The Job Relations Program

The supervisor can avoid many problems in his department if he builds a foundation of good relations. T. W. I. stresses these fundamentals:

Let each worker know how he is getting along.
Figure out what you expect of him.
Point out ways to improve.

Give credit when due.
Look for extra or unusual performance.
Tell him while "it's hot."

Tell people in advance about changes that will affect them.
Tell them WHY if possible.
Get them to accept the change.

Make best use of each person's ability.
Look for ability not now being used.
Never stand in a man's way.

People Must Be Treated As Individuals.

Applying these foundations is not, however, enough. Because problems do arise, the supervisor must be able to handle them before they seriously affect production or grow to larger proportions. The problem-solving technique is:

DETERMINE OBJECTIVE

STEP 1—GET THE FACTS.

Review the record.
Find out what rules and plant customs apply.
Talk with individuals concerned.
Get opinions and feelings.
Be sure you have the whole story.

STEP 2—WEIGH AND DECIDE.

Fit the facts together.
Consider their bearing on each other.
What possible actions are there?
Check practices and policies.
Consider objective and effect on individual, group, and production.
Don't jump at conclusions.

STEP 3—TAKE ACTION.

Are you going to handle this yourself?
Do you need help in handling?
Should you refer this to your supervisor?
Watch the timing of your action.
Don't pass the buck.

STEP 4—CHECK RESULTS.

How soon will you follow up?
How often will you need to check?
Watch for changes in output, attitudes, and relationships.
Did your action help production?

Typical Results of Use of Job Relations.

Coal mine.—"As a direct result of Job Relations, the output of coal has increased *120* cars per week (*480* tons of coal)."

Steel company.—"Complaint cases to management have dropped *54%* since J. R. was started. Grievance committee meets now on an average of three times a month; formerly it was at least three times per week."

Radio plant.—"Since the Job Relations program has been in effect, about 6 weeks, employee complaints or grievances have been reduced *97%*, or from 30 per month to 1 per month."

Food plant.—"Most of the problems that used to come to management are now handled by the foremen themselves. Foremen have increased confidence. The foremen are noticeably careful in making a decision to be sure they are within the practices and policies of the company so that they will be supported by their superiors."

Meeting the Plant's Overall Training Needs

The majority of T. W. I. time is spent in the field of supervision but, as stated, T. W. I. programs are not started in a plant until management has indicated its definite intent to stress their use by giving the responsibility for training direction or coordination to a specific person.

T. W. I. provides to management assistance for this training man through 4-day Program Development institutes in which the man learns and uses a 4-step method of meeting production problems through training.

STEP 1—SPOT A PRODUCTION PROBLEM.

Get supervisors and workers to tell about their current problems.
Uncover problems by reviewing records—performance, cost, turnover, rejects, accidents.
Anticipate problems resulting from changes—organization, production, or policies.
Analyze this evidence.
Identify training needed.
Tackle One Specific Need at a Time.

STEP 2—DEVELOP A SPECIFIC PLAN.

Who will be trained?
What content? Who can help determine?
How can it be done best?
Who should do the training?
When should it be done—how long will it take?
Where should it be done?

Watch for relation of this plan to other current training plans and programs.

STEP 3—GET PLAN INTO ACTION.

Stress to management evidence of need—use facts and figures.
Present the expected results.
Discuss plan—content and methods.
Submit timetable for plan.
Train those who do the training.
Secure understanding and acceptance by those affected.
Fix responsibility for continuing use.

Be sure management participates.

Step 4—Check Results.

How can results be checked? Against what evidence?
What results will be looked for?
Is management being informed—how?
Is the plan being followed?
How is it being kept in use?
Are any changes necessary?

Is the Plan Helping Production?

The Institute is scheduled as two consecutive days during which the members practice the method, using material drawn from many industries. Then they return, after one week, for work on their own plans which they have meanwhile developed. Throughout, T. W. I. stresses that:

The *Line* organization has the responsibility for making continuing use of the knowledge and skills acquired through training as a regular part of the operating job.

The *Staff* provides plans and technical "know how," and does some things FOR but usually works THROUGH the line organization.

WAR MANPOWER COMMISSION

Bureau of Training

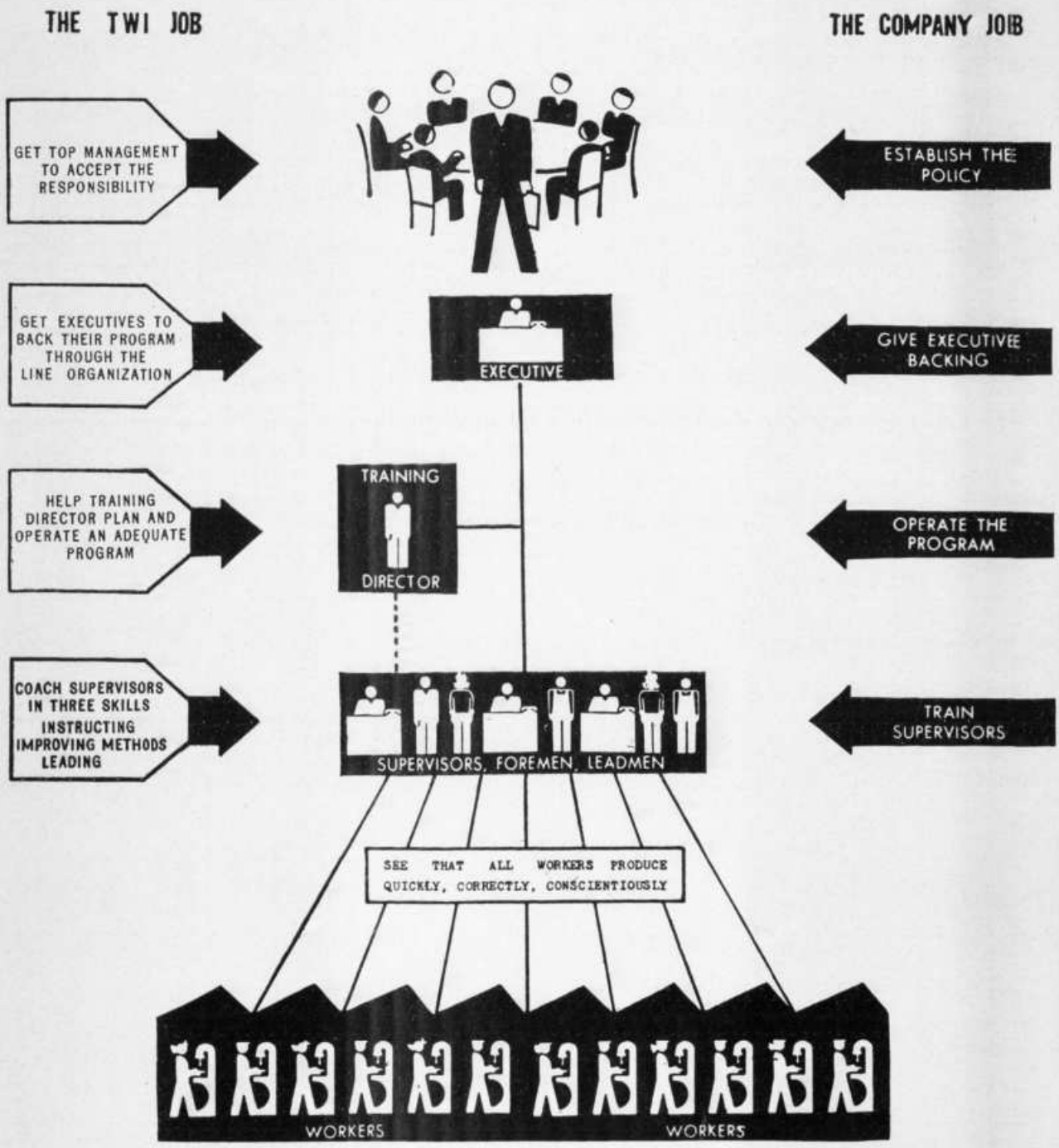
TRAINING WITHIN INDUSTRY SERVICE

C. R. Dooley, *Director* Walter Dietz, *Associate Director*

M. J. Kane and William Conover, *Assistant Directors*

For service or further information, call the nearest War Manpower Commission representative, or:

TRAINING WITHIN INDUSTRY



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TRAINING WITHIN INDUSTRY

BUREAU OF TRAINING WAR MANPOWER COMMISSION

Bulletin #8-A

Washington, D. C. May, 1942

SAFETY ON THE JOB FOR THE NEW EMPLOYEE

Industrial safety is vital to war production. All accidents interfere with the flow of work; many result in damage to machinery, equipment, or work; some involve injuries. Injuries result in at least temporary loss of services when full-time work of every employee is needed.

It is important that the new employee receive an early introduction to the company's program and policies in relation to safety. The right way to do a job is the safe way, and training in the right way to do a job will be training in the safe way to work. Safety must be an integral part of the introducing and instructing process.

If safety is handled as an "after-thought," either in induction or instruction, the employee may consider it as apart from his regular duties. Safety is not something just for a meeting, not just a humane attitude - it is fundamental in getting out maximum war production.

This bulletin has been prepared with the cooperation of the National Committee for the Conservation of Manpower in War Industries, Division of Labor Standards, United States Department of Labor.

C. R. Dooley, Director
Training within Industry

INTRODUCING EMPLOYEES TO SAFETY

Introduction to safety is part of job induction. The program and policy of the company, its safety rules and regulations, must be put over in the general introduction so as to form a natural part of the particular job under consideration.

1. Handling the Initial Interview

The supervisor should always take into account the man's previous experience. If this is his first job - what, if anything, does he probably know about industrial safety in general? If he received training at a trade or vocational school - what attention, if any, was paid to safe work practices? If he has been employed in another company, what safety program does that company have? What was the employee's injury record? If If these facts are not known beforehand, the supervisor should attempt to draw them out during the interview.

2. Providing the Employee with Information about the Company's Safety Program

Information concerning the company's safety program and policies should be given at the same time as information concerning general policies.

Stress the measures to guard machines and minimize physical hazards, as well as management's interest in the workers' well-being.

3. Providing the Employee with Information about Safety at His Work

When the employee is being given information about his work, point out the hazards to which he will be exposed: (a) in the type of work to which he will be assigned; (b) as a result of work being performed in his immediate vicinity; and (c) as a result of operations or processes carried on in the department. The supervisor should stress the precautions which the employee must take to avoid injury, and emphasize individual responsibility for safety and the advantage to the employee.

The supervisor should also point out the dangers attendant upon "horse play" and the unauthorized use or the misuse of air hose and other equipment. Company rules should be explained clearly.

The employee should be given general information about any plant safety contests or campaigns, and the standing of his department in them. General safety measures, such as type of clothing, rules for keeping aisleways clear, enclosures around belts, storage and piling of materials and equipment, should be pointed out during the tour of the department. If the safeguard or rule was adopted following a serious accident, or if an accident has resulted from disregard of safety, mention the incident when the guard or rule is pointed out. The employee should be shown the first aid room, and have explained to him rules concerning the reporting of even "trivial" injuries.

4. Safety in "Hazardous" Plants

In many war production plants conditions should frankly be described to the employee as "hazardous." Make the distinction between "dangerous" and "hazardous." Where explosions can be caused by carelessness, only the thorough following of a rigid safety program can keep a hazardous plant from being a dangerous one.

If accident probability is high, more restrictions may be necessary. For example, employees may be permitted to move about only in their working area, and clothing may be designed because of special hazards.

5. Responsibility for Introductory Material on Safety

The safety performance of the new employee, like his work performance, is the responsibility of his supervisor. A safety program, supervised by a safety engineer, does not excuse the supervisory any more than an organized plan of induction justifies failure to follow through on the general induction process. As in the whole induction process, the supervisor's care and insight in approaching the job, and his experience in dealing with people, will determine the success or failure of the introduction to safety.

SAFETY AND THE TRANSFERRED OR REHIRED EMPLOYEE

When an employee enters a new department, he needs safety information and training to almost the degree of the new man. He may know the company's

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general policy, but he needs information about his new assignment. The new department probably will have its own rules and hazards. If a bad accident record figured in reasons for a lay-off, previous discharge, or transfer, stress safety rules and regulations particularly.

SAFETY IN INSTRUCTION

A good job breakdown must be made before good job instruction can begin. A job breakdown shows how to do the job efficiently, safely, economically. The safe practices in a job are true key points. There are short cuts on most jobs, but speed on one piece of work is not as important on war production as is continuous output. Safety and efficiency are simultaneous products of good machine design, well planned processes, and carefully thought-out work practices. Good job breakdowns and thorough training are foundations for safe, efficient work.

THE PLANT SAFETY PROGRAM

In many localities, safety has suffered from a sentimental approach. Management may feel that its job is handled by the statement that "unsafe practices will not be tolerated." Some companies look on safety as a public relations policy (a few believe that a plant safety program ranks along with factory picnics - devices to build good will).

Safety and Production

Safety is a production problem. Every accident, whether or not it involves human injury, is an interruption to the orderly flow of production. Manpower loss is a block to production which is almost impossible to make up. Planning instruction on the basis of the safe way and emphasizing hazards along with key points in breaking in a man on a new job are realistic foundations for a plant safety program which is undertaken on the basis of "good business in war time," not just because "it's the right thing to do."

Safety is a continuous job - it is necessary to follow up constantly to make sure that the man whose speed is increasing is not making time through dangerous short-cuts. Such short-cuts, though spectacular at the moment, will not speed production. Short-cuts may point out the need for a better way to do a job - but a shorter way cannot be tolerated unless it is safe.

Planning for safety may be a staff job, and the design and installation of safety equipment is definitely work for a safety engineer, but making safety effective in the plant is an integral part of the job of line supervisors. (Safety engineers and foremen can get training in safety methods through courses in Safety Engineering Defense Training, offered by engineering colleges and sponsored by the National Committee for the Conservation of Manpower in War Industries and the U. S. Office of Education. Tuition is paid by the Office of Education.)

Safe Practices

Do not depend on the making out of an elaborate set of safety rules. Sometimes regulations are an invitation to breaking them. "Safe practices" - the right way to do the job, illustrated on the job - will overcome this

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difficulty in many cases. Safe practices have to be worked out for specific jobs. Some belong to the factory, or perhaps to the industry as a whole, but most are at the job level. Safe practices are the natural outgrowth of good job instruction.

Group Approach

Posters and meetings where generalities are the topic do not put safety across. Reminders can be useful if a ground-work has been laid, but they cannot do the whole job. Poorly planned contests may only result in rivalry which promotes records, but does not improve conditions and may even lead to failure to report accidents. To obtain results a safety program must have whole-hearted management backing; and, to hold interest, it must provide for active employee participation. Group instruction in safety is effective when it is keyed to specific practices and hazards which are within the job experience. The foreman who studies his department's safety records and knows the causes of accidents can promote safety effectively. Specific hazards should be emphasized continuously - the hazards exists even in an accident-free period.

Guards

Mechanical guards are safety devices only when they are used. Installation of guards, and then depending on them to do the whole job, is acutely dangerous. Half-hearted enforcement of such regulations as those about wearing goggles can lead to contempt for a whole safety program. No equipment should be specified without good reasons, and the reasons should be explained to all employees involved. Once made and explained, the regulation must be enforced.

Safety and Health

Many jobs demand attention, good vision, strength, or other definite physical requirements. Regular physical examinations are as important as are checks on the condition of mechanical equipment.

Safety Clothing

Safety clothing is designed for several purposes: (a) to make the new worker conspicuous (some companies require new employees to wear red caps so that those with more experience will watch out to assist the new people); (b) to protect the employee by guarding against the possibility of having hair or loose clothing caught in moving machinery, or having feet hurt by falling objects (safety shoes are invaluable in accident prevention); (c) to protect other employees (in this group are the garments which are free from metal or other material which might cause accident).

SUMMARY

To put over safety for the new man as well as the experienced employee:

1. Be clear - and give the reasons.
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OFFICE OF PRODUCTION MANAGEMENT

Labor Division
"Training within Industry"

Bulletin # 4

STRENGTHENING THE MANAGERIAL ORGANIZATION

Helping managerial personnel to meet its operating responsibilities is the key to the success of an organization. It is also the key to the training of new workers and to the upgrading of present workers. Always it is the key to the maintenance of high morale throughout the work force, which represents the very foundation of the industrial defense program.

The recommended practices outlined herein, represent successful programs in many companies throughout the country.

C. R. Dooley, Director
Training within Industry

UNDERLYING POLICY

Planned development is the key point in considering the building of a strong executive and supervisory force. In such planning many companies stress one or two features and feel that these will build a strong managerial group. Some maintain a favorable salary scale; others have a liberal retirement plan; some stress periodic rating; others pursue excellent training programs; still others emphasize the close personal relationship between upper and lower levels of supervision.

Individually these features are sound, of course, but no one or two of them are sufficient. The full range of factors affecting supervisors and executives must be given attention and action if a company is to be assured of a strong, energetic, and cooperative mangerial force.

Typical of the many examples showing the necessity of attention to all aspects of this problem are the following:

Foremen are not likely to do their best work in meeting schedules and reducing costs if they are held responsible for delays and costs over which they have no control.

A foreman finds it difficult to be genuinely helpful to a worker who has a wage question if he has a question regarding his own compensation.

Any executive or supervisor is not likely to keep close touch with his group if he is able to see his own superior but once or twice a month.

Many an executive or supervisor stays with his company because the salary is satisfactory, but uses but a portion of his real capacity because his area of responsibility is not clear, his relationship with his boss not cordial, or he is a victim of internal politics.

Examples such as the foregoing, illustrate why sound and far-sighted management policy is so important, and why such policy, even when it has been formulated, does not serve its intended purpose unless all members of the managerial group understand it and know their specific responsibility in carrying it out.

SOUND PRACTICES

The following fundamentals - already well known - represent some of the principal practices which build a strong managerial force.

Selection

1. Select executives and supervisors on a basis of leadership qualities, and not alone on job knowledge and job skills.

   An important aid at the time of selection is the preparation of a written position description, setting forth clearly the duties and results expected of the incumbent.

Training

2. Prepare a chart of the whole organization. Discuss it with all executives and supervisors. See that each man understands the functions and relationships of the various units and particularly his own place and function in the organization.

3. See that all members of the executive and supervisory group understand the company's policies, particularly, industrial relations policies.

   A growing number of companies are reducing to writing their basic policies, both to clarify just what the policies are, and to assure that everyone in the company understands them.

4. See that each executive and supervisor is given sufficient authority to carry out the responsibility assigned to him.

5. Give such organized aid and training to the executive and supervisory force as is appropriate and will be helpful on current problems.

   This is an important point representing a program in itself. Bulletin 4-B is devoted specifically to how such aid and training may be given. It is important to note that a well rounded plan for Strengthening the Managerial Organization requires attention to the twelve points mentioned herein, plus the amplification of this section in Bulletin 4-B.

6. Plan transfers and rotations as well as promotions. Some companies make transfers and rotations for the express purpose of developing and rounding-out individual executives and supervisors and not solely to fill positions after a need has arisen. They find that competent men in widely differing fields can "trade jobs", not only without impairment to operations, but with distinct profit to the men and to the jobs. Fresh and unprejudiced points of view toward the new jobs usually result in outstanding improvements. It is not uncommon for executives with 25 years service to have had ten to fifteen different positions. The resultant competence, breadth of knowledge and judgment is a major factor in the success of companies pursuing this plan.

7. Encourage professional development. Merbership in engineering, management, accounting, sales and other professional societies, and appropriate participation therein is encouraged by many companies. Foremanship too, is a field of growing professional interest.

Status and Pay

8. Give supervisors all the privileges of salaried employees, plus whatever additional privileges are appropriate in each local situation, i.e., parking space, desk equipment, lockers and other symbols of status.

9. See that supervisors, particularly foremen, are "in the know," i.e., trust them, give them actual departmental profit and loss figures, not just man-hour reports. Have them review (solicit their suggestions when appropriate) and see that they understand any plan that involves them such as:

Job Classification.	Change in cost reports.
Wage payment plans.	New inspection plan.
Contemplated purchase of new equipment.	New layout of department
Rating plan concerning themselves or their workers.	Union agreement, grievance procedure, grievance settlement.
Plans for upgrading workers and supervisors.	New production or quality standards.

And above all, see that foremen are informed as to any new general company policy or provision BEFORE such information is released to workers. Examples: new plant rules; sick pay plan; provisions relating to military training and service; new union contract, agreement or procedure; new defense contract received; wage and hour law rulings.

10. Pay supervisors not only the going salary rate, but a rate appropriately above those supervised.

11. Pay all supervisors on a salary basis, i.e., all who give their full time to directing the work of others. (Lead men, working foremen or those whose supervisory function deals only with assigning work and helping maintain production schedules, may be exceptions.

    During periods of temporarily slack operation, do not reduce supervisors to an hourly rate unless such a period is prolonged and it becomes necessary to demote them to hourly rated jobs. Until this action is taken as a last resort, have them work part-time and pay them proportionately, but maintain them on the salary roll.

12. Give appropriate salary increases based upon performance. Avoid being influenced by the many personal relationships that obtain in every organization.

In many companies it is the accepted policy that the development of a foreman, superintendent or works manager is just as important as the development of a product, plant or policy. Just as much attention is given to planning the one as to the other. In planning the development of managerial personnel, a great many factors are considered. They embrace all the day-to-day practices and influences in the company which make for sound growth, development and prudent management.

Washington, D. C.
November 1940

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Washington, D. C.
June, 1944

SUPPLEMENTARY INSTRUCTION FOR UPGRADING

America at war demands that every man and woman work at his or her top skill. Maximum production depends on maximum use of skill. The upgrading of workers to more skilled jobs requires the full cooperation of both employees and management. Management must be constantly on the job of discovering skills and placing and training its employees until everyone is doing the best job of which he is potentially capable. Similarly, the employee must avail himself of every opportunity to learn, on or off the job, both the technical skills and the supplementary knowledge necessary for advancement to the higher and more responsible jobs in his plant.

Training in the essential skills of a job is best done on the job, but the supplementary information which is a tool for a more demanding job is most often acquired off the job. Supplementary instruction is applicable at all levels of the organization and a necessary requirement for moving from one stage to that above. Time is wasted and lost, and so are skills, unless management encourages employees to help themselves through off-the-job instruction and integrates it with progression on the job.

The best interest of the worker, the best production by industry, the best service to our country depend largely on the BEST USE OF THE SKILLS of all our people.

C. R. Dooley, Director
Training Within Industry

RESPONSIBILITY FOR SUPPLEMENTARY INSTRUCTION

Every earnest worker expects to be promoted to a better job with better wages, as soon as he demonstrates that he can do that more responsible job and there is opportunity. The individual worker generally knows what his actual skills are and in what potential direction they lead. Therefore, much of the responsibility for supplementary instruction to develop his potential skill rests upon the employee himself.

While some employers provide both facilities and time for related instruction concerned with the job on which the employee is now working, the increasing necessity for maximum production means that this type of instruction will more and more be done after hours. And instruction which applies to the more advanced job will tend to be left even more to the ambition and initiative of the employee.

However, management can and should stimulate the employee to seek supplementary instruction outside the plant by:

1. Establishing and announcing the requirements for advanced jobs toward which the worker may strive

2. publicizing the use management makes of information about out-of-hours instruction

3. providing information about local opportunities for supplementary instruction

4. giving financial assistance for or other recognition of outside study

and management can perform a useful function in coordinating such instruction by:

1. guidance of outside study to tie in supplementary instruction with training received on the job

2. making information about the employee's off-the-job instruction a part of the plant personnel records used when candidates for better jobs are considered.

The Requirements for Advanced Jobs

Each war industry has a vital and definite training job. Maximum results must be accomplished in record time. Upgrading is constantly necessary if war industry is to get results. An invaluable aid in securing the cooperation of employees in upgrading is the use of specifications giving essential requirements for jobs. Job specifications, listing the most important types of things each skilled worker does, should therefore be widely circulated among all employees. The worker then will know what information, skills, and aptitudes are required of him in order to secure an advanced job and will see what he has to do in order to fill that job.

Job specifications are also necessary for schools that offer supplementary instruction to workers. Properly prepared specifications furnish an accurate picture of specific skills required and may be used to outline a school program of progressing steps to develop the required skills and information quickly in wisely selected workers.

During the last war the Army wrote such specifications for the various jobs in military units. Schools used them, and extraordinary results were obtained. Skilled workers were trained in much less time than had ever been done before and more effectively than had ever been considered possible - in many instances the instruction period in schools was cut in half. Industry now recognizes its own need for job specifications but does not always make them available to employees or to schools.

We need to use specifications now as a medium of stimulation, inspiration, and incentive for the employee - in other words, we need them now, as a necessary tool in securing the worker's cooperation in his own upgrading. He needs to know just what the requirements are for successful performance right on the job.

In order to use supplementary instruction in the upgrading procedure, it is essential to study the progression that can be made if "something else" is added. The company training director should be responsible not only for collecting information about available supplementary instruction but he should present it to employees in a way which shows its relation to the factory jobs.

"Going to night school" is a good American custom - it will help America now if the young factory operator, for example, studies shop arithmetic or blueprint reading, and the ambitious supervisor adds to his knowledge of technical and personnel subjects.

Information about Outside Instruction

In helping employees (men and women) to plan their own off-the-job instruction intelligently, management through its training director or similar official will need an evaluation of instruction offered by outside agencies - public school evening courses, defense courses, government-sponsored adult education programs, programs of such groups as the Y.M.C.A., college extension programs, and so on. The district offices of the Training within Industry Service furnish information on the amount, caliber, and cost of supplementary instruction.

COORDINATION OF SUPPLEMENTARY INSTRUCTION

Once the employee undertakes supplementary instruction in order to qualify for more skilled tasks, management must help to coordinate the employee's out-of-hours study in such manner that the supplementary work assists in the upgrading of the employee in minimum time.

Training is a management responsibility. When part of the employee's instruction comes from an outside source it is good business for the management to help in shaping the direction of off-the-job instruction. Well-written job specifications will help management to know what specific jobs require in special or technical knowledge. From this knowledge management can help the aspirant for any particular job to plan his supplementary instruction intelligently.

RECOGNIZING SUPPLEMENTARY INSTRUCTION IN PLANT RECORDS

The fact that a young operator, since his employment, has successfully studied blueprint reading and drafting is as necessary a part of the plant personnel records as the fact that before he was employed he was graduated from a high school. This off-the-job instruction has added to his ability and it has also given an indication of personal characteristics. Such instruction is therefore a very important part of the employee's personnel record. It is immediately useful to management for upgrading the employee. It is a powerful factor in morale-building because the employee knows that management recognizes that he is trying to improve himself not only on his present job but for the advanced job which he hopes to get.

The plant training man cannot pick up this information completely by any casual method. There must be a regular process or channel through which this information becomes part of the personnel records. This is

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valuable information for the company, and it is a builder of good will. Even if there has been no insurance, through a regular process of recording information on off-the-job instruction, that the company knows that a man has acquired a better background and that he has marked interest in his job, the man who is not considered for a job for which he knows he is qualified will feel resentment.

The company can guide its employees toward useful off-the-job study and it needs to set up a regular process to get information about the instruction which its employees are getting on their own. It must be made clear however that this kind of related instruction is no guarantee for selection for the next vacancy; too many other factors are involved.

Assistance with the Expense of Off-the-Job Instruction

When a public agency supplies instruction which is useful to production, part of the load on plant management has been relieved. A number of companies feel it good investment to pay all or part of the fees which the employee must pay for supplementary instruction when such instruction follows an approved plan and is successfully completed.

PLANNING INTEGRATION OF SUPPLEMENTARY INSTRUCTION

With the increasing training load, it is necessary to assume that in each plant there is one person who has the responsibility for training (of course, in small plants, this may not be a full-time job). But one person cannot do the whole job of integrating supplementary instruction with production. Supervisors are in the best position to be helpful to those whose work they know.

Supervisors write job specifications or assist with them, and they will help most on job performance. If there is a joint training committee, it should be used to get employees' ideas on what they believe they need.

SUPPLEMENTARY INSTRUCTION'S IMPORTANCE TO A PLANT PROGRAM

Off-the-job instruction will do part of the training, and plant management needs to know what is available so that employees can be helped. But making information available does not insure that it gets across. Supplementary instruction must be promoted.

When supplementary instruction is planned, when it is integrated with the plant program, when it is used, it becomes an important part of the industrial training program.

Training on the job and supplementary instruction, when planned and tied in and used with the individual worker's best talents in view, result in real education for the individual - he is then at his best; he grows strong, works hard, and likes it.

Originally Issued
May, 1942

OFFICE OF PRODUCTION MANAGEMENT

Labor Division
Training within Industry

Bulletin #1

THE "TRAINING WITHIN INDUSTRY" PROGRAM

The Office of Production Management has established this service for defense contractors and sub-contractors to assist them in meeting the increasing needs for skilled workers and supervisors.

The underlying PURPOSE of this activity is:

> To assist defense industries to meet their manpower needs by training within industry each worker to make the fullest use of his best skill up to the maximum of his individual ability, thereby enabling production to keep pace with defense demands.

Based upon types of requests for assistance which have been received from industry, the PROBLEM of providing the kinds of skill needed divides into three parts:

1. Inventory of present skills. This should include those employed below their greatest usefulness as well as the unemployed. Various national and local governmental agencies, and other cooperating groups, are at work gathering this information, but each plant should also take stock of the talent and experience of its own employees and make internal adjustments before employing new men.

2. Training outside of industry. This includes pre-employment instruction and related supplementary instruction. This part of the program is being provided for by public and private vocational and trade schools and by engineering colleges, but it is of such vital interest to industry that the closest kind of cooperation must be continuously maintained with them.

   National Youth Administration, Work Projects Administration, and Civilian Conservation Corps also offer opportunities for pre-employment work experience making for better preparation for work in defense industries.

   It is of utmost importance that the industries served participate actively with the schools in setting up entrance standards, so that all who complete the school training will be acceptable for employment. It is also important that the numbers of persons trained be not greatly in excess of the needs of the industries served. Industry can well afford to supply some of its first-class employees to schools as teachers. Some of their retired employees may be excellent instructors. Industrial management can also

assist these other agencies in making their services increasingly useful to industry by constant consultation regarding job requirements.

3. TRAINING WITHIN INDUSTRY. This particularly deals with industry's own training responsibilities, and is the area in which the efforts of this activity are concentrated. It is accomplished through upgrading of all classes of personnel as their experience and abilities warrant, through planned job progression, job rotation, and intensive supplementary instruction both on and off the job.

   The conclusions of various recent conferences confirm experience that this training includes three phases:

   (a) Development of production specialists through intensive instruction on the job according to basic operations.

   (b) Development of all-round skilled mechanics through trades apprenticeship, in accordance with federal standards, separate from production worker training, for the purpose of developing a pre-determined, limited number of all-round journeymen mechanics.

   (c) Development of supervisors through careful selection, assignment of supervisory duties of increasing responsibility, and provision for related organized help through discussions and conferences under both plant and outside auspices. Technical and other management assistants must be developed also.

This organization renders specific ADVISORY ASSISTANCE to defense industries in inaugurating programs which they carry on within their own plants at their own expense. The availability of this service is widely known, but is not compulsory. There is no authority to go into a plant on any basis other than at management's request.

Four general types of assistance apply in most cases and are being adapted to fit the various conditions in each specific plant.

1. Help in the analysis of the training needs.

2. Aid in setting up a program within the plant to meet its needs.

3. Experience of other employers who have met similar problems is made available through headquarters and field clearance.

4. Availability of the services of tax-supported government agencies, such as the state and federal employment service, vocational and trade schools, engineering colleges, N.Y.A., C.C.C., W.P.A. made known to plant managements so that the fullest use may be made of them. Only through interpreting

the needs of industry to these agencies, and their closest coordination, can they furnish the most effective pre-employment education and pre-employment experience as well as related instruction for employed workers.

A COUNTRY-WIDE ORGANIZATION to assist individual defense manufacturers in the solution of their training problems operates through 22 field offices of the Training within Industry branch of the O.P.M. Labor Division. These district offices are listed on the reverse of this page.

In charge of each is a District Representative who is the direct agent of headquarters at Washington. Borrowed from industry, he was selected for his background in production and industrial relations. In most districts he is supported by an Assistant Representative.

Associated with the District Representatives in each district are four Advisers, two who represent Management and two representing Labor. With a broad background in their respective fields, the Advisers promote helpful relationships and stimulate wider interest in the advantages of training in the plant.

The personal service that Training within Industry renders to the individual manufacturer is performed most often by one of several Consultants. They are part of the district organization and are members of the industrial community they serve. Consultants bring to their tasks extensive experience in the fields of management, production, and personnel, and have an understanding of local factors. Their services are available on request to the District Representative.

Activities of the field organization are directed from headquarters at Washington.

THE HEADQUARTERS' STAFF consists of the Director, Associate Director, Assistant Directors, and specialists with broad experience in the training problems of industry. The staff is assisted by an Advisory Committee composed of six representatives of Labor and six of Management. Technical Consultants, responsible for the successful administration of training in industry, complete the staff.

Both the headquarters and district offices are described, along with listings of personnel, in Organization and Personnel Bulletin #1-A. The territory served by each office is shown by a map included in the bulletin.

Washington, D. C.

August 15, 1941

C. R. Dooley, Director
Training Within Industry

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DISTRICT OFFICES
TRAINING WITHIN INDUSTRY

Branch of the Labor Division
Office of Production Management

For information or advisory assistance concerning the training of workers while on the job, apply to the Training Within Industry district office listed below that is nearest to you. Your request should be addressed to the District Representative who is in charge.

Atlanta, Ga., Georgia School of Technology,
225 North Ave. N. W.
Baltimore, Md., Room 3106, Baltimore Trust Bldg.
Boston, Mass., Room 1039, Park Square Bldg.
Canton, N. C., 27½ Church St.
Chicago, Ill., Room 2105, Merchandise Mart,
222 North Bank Drive
Cincinnati, Ohio, Room 802,
Fifth-Third Union Trust Bldg.
Cleveland, Ohio, Room 797, Union Commerce Bldg.,
925 Euclid Ave.
Denver, Colo., Room 518, U. S. National Bank Bldg.,
817 Seventeenth St.
Detroit, Mich., 702 American Radiator Bldg.,
1346 Broadway
Houston, Texas, Room 3201, Gulf Bldg.
Indianapolis, Ind., Room 915, Circle Tower Bldg.
Los Angeles, Calif., Room 452, Roosevelt Bldg.,
727 West Seventh St.
Minneapolis, Minn., Room 1800, Rand Tower Bldg.
Newark, N. J., Room 601, 605 Broad St.
New Haven, Conn., Room 513, 152 Temple St.
New York, N. Y., Room 2026, 11 West 42nd St.
Philadelphia, Pa., Room 2301, 12 South 12th St.
Pittsburgh, Pa., Room 360, Administration Bldg.,
Carnegie Institute of Technology
St. Louis, Mo., 603 Shell Bldg.
San Francisco, Calif., Room 702,
260 California St.
Seattle, Wash., Room 957, Stuart Bldg.,
4th and University Sts. (affiliated
office located at Portland, Ore.,
Room 1100, Public Service Bldg.)
Upstate New York (location pending)

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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 school-room 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-round 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 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 lend 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 have as part of their setup 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 standard 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 chrystallized and is available in outline form. Lists of suggestive subject matter for discussion, arrangements of the order in which discussions 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 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 range 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.

Washington, D. C.
August 1, 1941

OFFICE OF PRODUCTION MANAGEMENT

Labor Division
Training within Industry

Bulletin #2-A

TRAINING PRODUCTION WORKERS

Many defense contractors are facing these common questions:

Where can I get skilled operators?
Is it too late to start training now?
Where can I train them?
How long does it take to get results?
Where can I get help on training plans?
How about the cost?
How should I start?

There are no stock answers to such questions which fit all localities or industries, but one defense contractor who had to answer them and triple his work force reports:

> "As learners were 'broken in' on the day shifts, they were transferred to the second and third shifts and placed on their own. This kept up until all machines on all shifts were filled, resulting in a 24-hour day, 7-day week for the machines. Since the operators work a 5-day week, additional trained workers were made ready to take the places of the men who are off, to keep all machines running continuously.
>
> "We found this system of training short and good; we know it will work in any industry and on any kind of work."

The following procedures represent successful practice in many leading companies. They are recommended to any company that wishes to get new workers into production in a minimum of training time and to develop experienced workers to their greatest usefulness.

C. R. Dooley, Director
Training within Industry

EXPEDITING PRODUCTION THROUGH TRAINING

Three steps normally are taken in training production workers:

1. Engineer the jobs.
2. Instruct new workers on beginning jobs.
3. Instruct experienced workers in new skills.

These steps are such that any or all of them can be used and adapted to any company's production problem.

ENGINEER THE JOBS

Some companies find it possible and advantageous to so engineer their producing facilities that each operation requires but one principal skill on the part of the worker to perform it.

Although the engineering of production processes may not seem to be a part of a training program, it does represent the first and basic step in meeting and simplifying the training problem because it sets up the steps to be followed in doing the work.

INSTRUCT NEW WORKERS ON BEGINNING JOBS

In most cases the surest, quickest and most thorough way to train a new man is on-the-job, where he does, or helps to do, productive work. This is true whether the new man has had no prior training; has perhaps learned beginning skills in a vocational school; has had prior experience in the field but in another industry; or possesses a skill that has not been used for some years, and must be brought up to date.

Through this plan, the principal features of which are given below, many companies have doubled their personnel and production in six months time.

Experienced operators from the various types of operations or machines, are selected to "break in" new men. Good "mechanics" do not necessarily make good teachers, so the selections are made with extreme care.

Those selected to instruct new men are made familiar with the basic principles of job analysis and job instruction as outlined in Bulletin #2-C—"Helping the Experienced Worker to 'Break In' a Man on a New Job."

New operators are carefully selected. Tests, administered by someone familar with their limitations, provide valuable aids to judgment.

A new man (several if the process permits) is placed with each experienced worker who has been selected to give the instruction. The more apt of the new men are placed on the more difficult operations.

The experienced operator gives the new man his initial job instruction and teaches him the entire operation as rapidly as he can master it. On many operations the help of the new man is such that production is increased, in which case the experienced operator may receive the benefit of such additional production in his pay. On others, there may be a temporary drop in production, in which case the experienced operator should receive extra compensation, i.e. beyond his reduced earnings, while engaged in instruction work.

This plan operates particularly well on jobs where there are several things to do, so that the experienced operator can keep the learner busy most of the time. Examples: machine tool operation, pipe fitting, boiler making. Where the job is a continuous series of repetitive operations, appropriate adaptation must be made. Examples: punching, drilling, stamping. Sometimes the new man can be put on the machine next to the experienced operator's machine.

Often it is necessary for the experienced operator to spend some time - from an hour to a day - with the new man getting him properly started.

Best results from this plan are obtained, of course, when the supervisory force understands the procedure and lends help and encouragement to both the experienced operators and the new men. The shop superintendent and all the supervisors should be familiar with the fundamentals of job analysis and also job instruction. The latter is outlined in Bulletin #2-C--"Helping the Experienced Worker to 'Break In' a Man on a New Job."

INSTRUCT EXPERIENCED WORKERS IN NEW SKILLS

This important phase of instruction on the job is one which is all too often overlooked. Many companies lose the full benefit of capable men, and many employees lose the opportunity to render their best service because no one takes the trouble to develop them to the maximum of their individual abilities.

The following are some of the many ways in which instruction may be given to experienced workers.

a. Through instruction or "coaching" by the foreman.

Here are just a few of the ways a foreman can help "bring a man along". Any foreman can use them if he is wide awake to his opportunities.

--Point out the important "tricks" or "knacks" of the job.
--Ask questions (tactfully, of course) regarding parts of the operation - where a certain part fits in to the final product - why a tolerance is important to successful use - what would happen if certain mistakes are made.
--Explain technical and safety points through sketches that can be quickly drawn at the employees work place.
--Call operators from several inter-related operations together to inspect and review some scrapped material or faulty operation.
--Take or send operators to the final assembly line; to the department where their work is used; to the experimental or test department; or to wherever is necessary to gain a full understanding of the complete job.

b. Through special instructors.

Some companies have set up training sections separate from the regular production shop, using the output of such sections in the regular manufacturing process. Whether the instruction is given in production shops or in separate training sections, it is necessary to equip those selected to do the instructing with an organized knowledge of production operations and the ability to impart it to others. In some cases the number of men to be trained justifies making the experienced operator a full time instructor. (See Bulletin #2-B--"How to Prepare Instructors to Give Intensive Job Instruction.")

c. Through special arrangements so an employee can "get his hand in on new work".

Sometimes it is possible for some of the machinery or equipment to be used after the close of the regular work shift by employees who wish to qualify for new jobs.

Where this is not possible, some companies put machinery and equipment in a special location expressly for the use of employees who wish to qualify for better jobs.

In each case, of course, a foreman or instructor is present, not only to instruct the employees thus engaged, but to assure that the equipment is properly used and left in proper condition for the next regular work shift or "practice group".

d. Through use of local schools.

Often vocational schools, high schools and engineering colleges can provide valuable help to experienced employees where there is machinery and equipment on which employees may practice higher skilled operations. These are effective to the extent that school and industry plan together and agree upon the instruction to be given.

It is equally important that a similar agreement be reached regarding related technical instruction to be given by the schools.

Washington, D. C.

August 15, 1941

OFFICE OF PRODUCTION MANAGEMENT

Labor Division
"Training within Industry" Policy Bulletin

TRAINING WORKERS TO MEET DEFENSE NEEDS

The rapidly increasing need for more training on the job in Defense plants calls for a common understanding of training objectives.

During this emergency we must keep our eyes on the one common objective -- much more production in the shortest possible time. With the unanimous approval of the Labor Division's Advisory Committee on Training, the following statement of policy is issued for the information of workers and management.

This bulletin is supplemented by two others. One of these is Bulletin 1 -- The Training within Industry Program -- which outlines measures for giving effect to the policies described. The other is Bulletin 1-A -- Organization and Personnel -- which lists those who are charged with putting the policies and program to work throughout industry. Other bulletins issued by this branch take up various phases of training most essential to Defense.

C. R. Dooley, Chief
Training within Industry

LEARN BY DOING - PRODUCE WHILE LEARNING

In this emergency, as well as in more normal times, it is good American practice and efficient business to have each worker make the fullest use of his best skill up to the maximum of his individual ability. Only through such use of the intelligence and skill of the nation's man-power will production keep pace with defense needs.

1. Additional workers will not be trained unless the available unemployed of equal skill have been absorbed or none are available locally.

2. There are normal losses from among skilled workers due to advancement into supervisory positions, changes to other occupations, sickness, death and retirement. These losses go on continuously, and it is necessary to bring along well trained workers to replace them. In addition, there is need to make up for the lack of apprentice training during the past ten years. These are the reasons why organized apprenticeship programs are so important now.

   There are two important phases of apprentice training:

   Definitely planned program of experience, scheduled and assigned step by step to enable the apprentice over a pre-determined time to acquire skill on increasingly difficult kinds of work in a trade.

> For every skilled job there is related technical matter, much of which can best be taught off the job. To be effective, this related instruction must be very closely tied into the current job experience. Practice, related theory and technical knowledge must go hand in hand. Workers, employers and technical educators should collaborate in determing what shall be included in this instruction and how it can best be related to the work experience.

The proportion of apprentices to be trained can best be determined in local areas in numbers and programs agreed upon in joint conferences between management and interested groups of employees or by agreements arrived at by collective bargaining units.

3. In a less formal way, many workers acquire a breadth of experience by learning one job at a time and becoming skilled in that, and advancing to a higher grade of work when opportunity permits. In an upgrading program the time cannot be definite and is controlled by available opportunities, depending upon production programs and specific vacancies as they occur. This differs from an apprenticeship program where the opportunity is controlled by advance agreement. Therefore, while craftsman experience may be gained by an apprentice in from three to four years, it may take the production specialist two or three times as long, or longer, to acquire corresponding skill and versatility through an upgrading program.

   In times of rapid expansion when there is a shortage of skilled workers, there is no choice but that of using inexperienced workers from other kinds of work or young people without any work experience but with good orientation background gained in public vocational schools during pre-employment training. Through intensive instruction they then must be brought to their highest skill on a limited operation in the shortest possible time. Advancement into more skilled work should always be made from among employees of longer experience on jobs which are good foundations for the higher skills. Attempts should not be made to replace skilled workers by narrowly skilled specialists.

   This puts upon Management a two-fold responsibility:

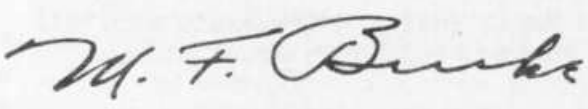
   > Foremen, instructors and experienced workers must assist less experienced workers in acquiring new skills, and ....
   >
   > They should see that employees who have the desire and capacity for advancement be not kept indefinitely on jobs requiring skill in single operations.

4. Apprenticeship, upgrading and supervisory training programs within industry are greatly implemented by making available

opportunities for individuals to get instruction and related knowledge which enable them to fit themselves for advancement. Whether these facilities are made available by public educational institutions, employers or organized labor groups, it is essential that there be continuous consultation between students, management and educators. Only through such cooperation can the instruction be of immediate practical value.

Such philosophy, such practices and such consultation should result in well-balanced training programs, and bring about an orderly and an effective approach to creating and maintaining a supply of competent workers available to meet the rapidly increasing needs of defense industry.

APPROVED BY THE ADVISORY COMMITTEE ON TRAINING
OF THE LABOR DIVISION, O. P. M.



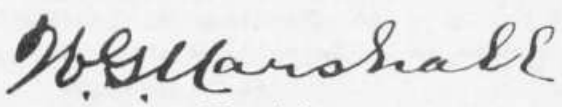
United Aircraft Corporation



Lockheed Aircraft Corporation



United States Rubber Company



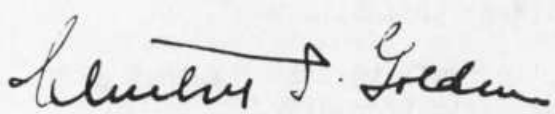
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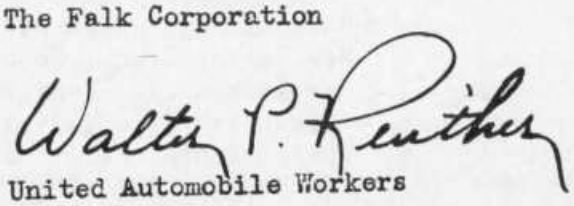
International Association
of Machinists



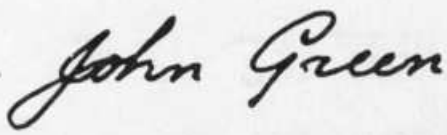
The Falk Corporation



Steel Workers Organizing Committee



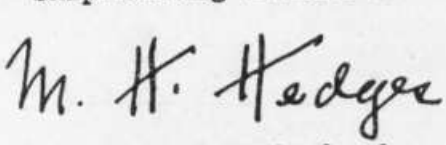
United Automobile Workers
of America



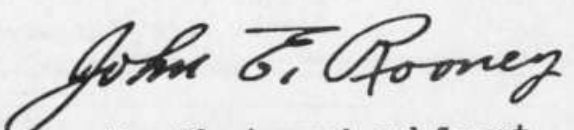
Industrial Union of Marine and
Shipbuilding Workers of America

E. J. ROBESON

Newport News Shipbuilding and
Dry Dock Company



International Brotherhood
of Electrical Workers



Operative Plasterers' and Cement
Finishers' International Assn.

OFFICE OF PRODUCTION MANAGEMENT

TRAINING WITHIN INDUSTRY

DISTRICT OFFICES

For information or advisory assistance concerning the training of workers while on the job, apply to the Training within Industry district office nearest you.

Atlanta, Ga., Georgia School of Technology
225 North Ave., N.W. (Hemlock 6890)
Baltimore, Md., Room 3106, Baltimore Trust Bldg.
(Plaza 1654)
Boston, Mass., Room 1033, Park Square Bldg. (Hubbard 0380)
Buffalo, N.Y. (location pending)
Chicago, Ill., Room 1441, 20 North Wacker Drive (Andover 1744)
Cincinnati, Ohio, Room 802, Fifth-Third Union Trust Bldg.
(Cherry 3740)
Cleveland, Ohio, Room 797, Union Commerce Bldg.
925 Euclid Ave. (Cherry 2984)
Denver, Colo., Room 518, U.S. National Bank Bldg.,
(Keystone 4151 - 596)
Detroit, Mich., 702 Boulevard Bldg., 7310 Woodward Ave.
(Trinity 1-5520)
Houston, Texas, Room 3201, Gulf Bldg. (Fairfax 9842)
Indianapolis, Ind., Room 1428, Circle Tower Bldg.
(Market 9411)
Los Angeles, Calif., Room 452, Roosevelt Bldg.,
727 West Seventh St. (Trinity 2104, 2105)
Minneapolis, Minn., Room 1800, Rand Tower Bldg.
(Bridgeport 7591)
Newark, N.J., Room 601, 605 Broad St. (Mitchell 2-1114)
New Haven, Conn., Room 513, 152 Temple St. (6-5186)
New York, N.Y., Room 2026, 11 West 42nd St.
(Pennsylvania 6-0486)
Philadelphia, Pa., Room 2301, 12 South 12th St. (Walnut 6820)
Pittsburgh, Pa., Room 360, Administration Bldg.,
Carnegie Institute of Technology (Mayflower 2600)
Raleigh, N.C., Raleigh Bldg., Fayetteville and Hargett Sts.
(2-3306)
St. Louis, Mo., 603 Shell Bldg., (Central 4206)
San Francisco, Calif., Room 702, Newhall Bldg.,
260 California St. (Exbrook 0369)
Seattle, Wash., Room 957, Stuart Bldg.,
4th and University Sts. (Eliot 6404); affiliated
office located at Portland, Ore., Room 1006
Bedell Bldg. (Broadway 0380)

TRAINING WITHIN INDUSTRY BULLETIN SERIES

ureau of Training
r Manpower Commission

Revised June, 1944

TYING-IN PRE-EMPLOYMENT TRAINING WITH ON-THE-JOB TRAINING

Training prior to employment helps shorten the time needed for developing skill on the job. With pre-employment instruction, the new employee learns the new job more quickly. He adjusts himself more readily to factory surroundings. He grasps sooner the language of the factory. And more important, he acquires beginning skill. Thus, a shorter break-in period is required before the new worker reaches good production standards.

Pre-employment training is most valuable when it is closely related to the job that the prospective worker will fill. When pointed toward a specific job, it has greater appeal and the student is more eager to learn. The result is better training.

This bulletin is based upon programs in successful operation. Experience shows that success depends upon a sound relationship between instruction under public auspices and training in the factory.

C. R. Dooley, Director
Training Within Industry

PURPOSE OF PRE-EMPLOYMENT TRAINING

The chief purpose of instruction in advance of employment in war production is to enable the worker to perform his tasks more effectively and reach production efficiency more rapidly when he goes on the job. The beginner becomes acquainted with the tools, machines and materials employed in the industry where he will work and acquires operational skills based upon routines and safeguards in common use.

NATURE OF PRE-EMPLOYMENT TRAINING

This form of training calls for (1) instruction in the ways of factory life (2) introduction to machines, tools and materials, and the acquiring of beginner's skill with a particular machine.

INSTRUCTION IN FACTORY WAYS

Among others, the following routines and practices should be stressed:

1. Safety

   Safety should be emphasized from the very beginning for first impressions are lasting. The beginner should be taught the

use of goggles, shields, and guards. His use of them where necessary should be stressed. He should be made acquainted with the destructive effect of centrifugal force as found in grinding wheels, fly wheels and work in machines. He should learn how to lift man loads safely and he should be schooled in the precautions to be taken against industrial hazards. Industrial hazards peculiar to the job and safeguards against them must be made clear. He should be informed about safety shoes and suitable work clothes.

2. Shop Instructions

The prospective employee should understand the purpose of shop rules, booklets of information for employees, operation sheets, inspection forms and other printed material designed for control and report purposes and for informing the worker. He should learn how to punch a time clock, something about how the pay check is computed, and the prevailing methods of payment whether by check or in cash.

3. Blue Prints and Measurements

If the factory job requires that a person work from blue prints, the course should include such instruction. Elementary shop mathematics may also be needed. The instruction should be practical; illustrations and problems should be drawn from the local industry for which the employee is being prepared.

4. Manufacturing Process

An explanation of the flow of production through the shop is distinctly valuable. The description should refer to the industry in which the student is being trained, if that is possible. Production flow diagrams, assembly charts and similar exhibits that indicate graphically the steps in the production process are very helpful. Information about the ultimate use of the product is of value in creating and maintaining interest.

In order to gear the pre-employment and supplementary training into the manufacturing process, many of the school shops are laid out as nearly as possible to duplicate the production lines of war production plants and the training is given around the production of selected parts that may go into the final production assembly.

TRAINING IN USE OF MACHINES AND TOOLS

Training of this character should be specific--on the machine or with the tools that the student will subsequently use. A smattering of skill should be avoided. It is better that the beginner be able to perform one or two simple operations than that he be superficially acquainted with several.

7-3877 P3 bu

Whenever possible, the shop facilities for instruction should approximate those in the factory where the prospective employee later will work. This refers especially to tools, machines, work benches and similar equipment. When this ideal cannot be realized, the next best equipment available should be provided. The suggestions below regarding instruction may be helpful:

1. Machines

When training prospective workers for the machine shop or a metal working establishment, the simple cutting operation on an engine lathe is of great value in acquainting the student with the workings of power driven tools. On this machine the student learns something about the process of cutting metal and about feeds and speeds. In addition, he becomes acquainted with cutting tools and how to grind them and the use of cutting solutions. He further grows familiar with the parts of the lathe and how to look after the machine. This experience is a good base for later training in various cutting operations. Engine lathes are available almost everywhere.

2. Tools

Correct practice in the use and care of these instruments of production should receive major attention. It is common knowledge that some losses in the plant are due to new workers who have not yet mastered the best methods of using simple tools and measuring instruments although they consider themselves competent. It is important that beginners receive early training in the correct use and care of small tools and instruments. Since they are available generally, a good deal of demonstration and practice may be afforded.

While in the school shop it is possible to develop a fair degree of dexterity in the use of calipers, snap and plug gauges and micrometers. This speeds the development of beginner's skill and discloses those who have mechanical aptitude.

3. Materials

The beginner should learn something about the materials used in the industry for which he is being prepared. With samples at hand, their characteristics and applications can be demonstrated. Reference should be made also to solutions, lubricants, cleaners, finishers, abrasives, adhesives and so on.

AVAILABILITY OF PRE-EMPLOYMENT TRAINING

Pre-employment instruction in varying degree is available in almost every locality. Public vocational and trade schools, public high schools, and many of the engineering colleges are ready and willing to offer their

services. In addition, government agencies especially the NYA consider the needs and recommendations of industry in shaping the content of their pre-employment work projects.

SELECTION FOR PLACEMENT

While the primary object of pre-employment instruction is adjustment to the factory environment and the imparting of initial skill, this training should also reveal the individual employee's fitness for a job in industry.

Observation, instructor's ratings and performance records, together with a suitable testing method are helpful in grading the student with regard to general ability, speed of learning and capacity to handle jobs at various levels of skill. Information of this character is highly valuable to placement officers--in the schools, state employment office and local factories.

CONDITIONS FOR BEST RESULTS

The closer the cooperation between the plant and the school, the greater the likelihood of satisfactory placements and of success on the job. Being trained for a specific job and then being placed on that kind of work in a plant build confidence on the part of the new worker and aid in prompt adjustment to the working conditions.

Washington, D. C.
Originally issued 1940

TRAINING WITHIN INDUSTRY BULLETIN SERIES

Bureau of Training
War Manpower Commission

Washington, D. C.
June, 1944

UPGRADING

This bulletin outlines a practice which is probably more widely used throughout American industry than any other form of industrial training, and which is most important from the standpoint of both production and employees. Many companies have long pursued excellent programs of "upgrading" without ever having given the practice a name. Now is the time for every company to review its upgrading practice.

Jobs are not static - they are lines of flow through the shop. One job leads to a better one, and, step by step, the employee receives his training and advances in skill. The job is a rung on the ladder of progress - this is the efficient way as well as the American way. Upgrading is a method that leads workers upward in the pyramid of organization. Rapid and efficient training can be made to meet unusual needs through such a definite step-by-step program.

C. R. Dooley, Director
Training Within Industry

WHAT UPGRADING IS

Upgrading refers to the natural and logical movement of employees within an organization for the purpose of developing and using each to the maximum of his abilities. Specifically, upgrading means:

1. Definite lines of progression -
   - planned promotion from within, both in departments and between departments
   - transfer to work for which a worker is best fitted, or to other lines of work where greater opportunity lies
   - having qualified employees "trade jobs" to develop experience and versatility - "job rotation"
2. Job instruction -
   - instructing employees rather than "letting them learn" when promoted or transferred
3. Rate adjustments -
   - prompt adjustments in individual rates, according to performance on the job and movement to other jobs - peridic rate review to assure equity
4. Supplementary instruction -
   - encouraging employees to pursue related outside instruction to increase usefulness

WHY UPGRADING IS SO IMPORTANT

From the company's standpoint the development of each employee to his highest level of usefulness is requisite to company success. Building competent manpower is considered one of management's primary functions in many companies.

From the employee's standpoint, growth and advancement through his work should represent the central core of his life.

Nothing is so destructive to employee efficiency, loyalty, and morale as to have a man hired from the outside and given a higher rated job for which someone already employed feels he could qualify. Telling the worker that the pressure of war production is so great that there is no time to give him the opportunity to learn another job is not a satisfactory answer. This is especially true in the case of a man who has his eye on a better job.

Furthermore, when an employee understands that upgrading is an established policy, he will do a better job of "breaking in" a new worker assigned to him.

When pressure for production eases and retrenchment becomes imminent, worker efficiency and loyalty will perhaps be even more necessary. It is essential, therefore, that the foundations for good future industrial relations be laid now.

HOW UPGRADING IS DONE

A well-rounded program of upgrading includes the following practices:

Determine Policy

Top management issues a written policy or letter clearly stating that vacancies are to be filled by upgrading, promoting, transferring, or rotating present workers before new workers are hired. All new workers are thus hired for certain definite beginners' jobs in the low paid brackets.

Plan the Program

One individual who is familiar with jobs and workers in the plant is assigned the task of collaborating with superintendents and foremen in preparing a plan by which the upgrading is to be done. In a small plant the program may be both planned and carried out by the superintendent - but the important feature is that one person must draw up a schedule of orderly movement from job to job. There are certain steps which fit the operation, whether the scale is large or small:

1. Determine lines of progression (from what job to what job).--Usually it is found that there are many groups of operations for which there already are natural lines of promotion. There are others, however, that do not fit into the normal promotional sequence and which should be fitted into the sequence to provide normal promotional opportunity and to prevent them from becoming "blind alley" jobs.

   All production jobs in the shop are listed in the order which indicates the lines of promotion from the lowest rated to the highest rated. This is done by departments, occupations, or any logical grouping of jobs. In many cases this means movement from one department to another; for example, machine operator to apprentice toolmaker, toolmaker to tool design engineer.

   Of course "line of progression" does not mean that movement from each job to the next is an immediate promotion. Obviously, before a promotion to many jobs is possible, workers may be transferred to two or more jobs on the present level to prepare them for promotion. Perhaps two, three, or more workers are asked to trade jobs to give them necessary background and work experience. (Occasionally this means that a worker must temporarily move to a lower rated job in order to get into a different line of work where eventually he can move up the line and into higher earnings.)

The line of promotion indicates the order in which jobs must be learned, so that, if this learning order is followed over a period of time, each worker will be using his best skill to the maximum of his individual ability.

2. Indicate experience necessary to qualify the employee for each job.--For each job, the operations that a qualified operator must be able to perform should be indicated. Such descriptions provide a ready reference for busy superintendents and foremen when promotions are considered, and are particularly helpful when transfers or rotations are planned for workers who need additional experience and "rounding out" before qualifying for promotion.

This work can be completed in a short time and requires only brief attention from time to time to keep up to date as jobs change. Descriptions should be charted and distributed to all shop supervisors as changes are made.

3. Determine where job rotation is applicable.--In those departments where all the employees perform work substantially of like difficulty, and where there are no "lines of promotion," about the only upgrading that can be done is job rotation. The benefits of this practice to employees and to the company will vary according to the kind of operation.

Job rotation is particularly useful in companies having frequent rush orders, emergencies, rapid expansions or seasonal fluctuations, engineering and model changes. To meet these problems promptly and efficiently, a flexible and versatile work force is highly desirable. The more jobs each employee can perform, the more useful he is under a wide variety of conditions.

Some workers do not want to move, do not want to be "upgraded;" others are anxious to master new skills. A program of job rotation is a good way to discover those employees who can learn several jobs, do so quickly and who have enterprise and initiative.

Assign Responsibility

Line superintendents and foremen, of course, are held responsible for carrying out the program.

The responsibility for helping them carry out the upgrading program is delegated to the individual who has done most of the work in planning it. This is a full-time job in large plants and part-time in small ones. He is given authority to suggest, to foremen and others, advantageous moves of workers, and he must be consulted and be in agreement with any promotions or transfers to be made. Any disagreement between the upgrading planning man and the superintendents or foremen moves up the line for review and final decision by a top executive.

See That the Plan Is Carried Out

A top executive keeps personal touch with a control of the upgrading program during the early weeks. He approves employment of new workers only after shop superintendents and others have shown him in detail that every present worker who is qualified for a better job has been promoted and that all other logical and reasonable transfers to round out experience have been made.

This personal control is maintained only for such time as is necessary to assure that the policy is definitely understood and consistently carried out throughout the organization.

Select Qualified Employees for Upgrading

When better jobs are open, they should be filled by the best qualified employees. An inventory of the working force will classify the employee's potential ability, previous experience, education, his job preference, and length of service. No matter what form this inventory takes - whether through interviews or personnel records or any other means - such information is essential to upgrading.

Such a centrally controlled plan makes available, for quick reference, information about qualifications of individual workers, job requirements, and paths of upgrading in order that the better jobs may be given to the best qualified employees. Management must specify that those who operate this central service be consulted on all upgrading opportunities and that final action be approved by them. Any disagreement between the line organization and the central service moves up the line for review and final decision by top management. Such a plan can be set up quickly by assigning the responsibility to a man who has wide knowledge of jobs and workers in the plant. Increased experience with upgrading constantly raises the level of results.

See That Employees Are Instructed on the Job

Experienced employees, as well as "green" workers, should be given careful instruction when moved to new jobs. Correct work procedures should be taught from the start. Typical instruction procedures are outlined in other Training Within Industry bulletins.

Make Practical Use of Supplementary Instruction

Appropriate encouragement should be given to employees to pursue outside studies in preparation for greater usefulness. Local schools and colleges offer a wide variety of courses. Special courses can readily be organized in the plant, to be taught by foremen, engineers, inspectors, or others. Some unions also conduct such courses. Completion of supplementary courses should be shown on personnel records. (See Training Within Industry Bulletin, "Supplementary Training for Upgrading.")

Make Prompt Adjustments in Pay

Pay adjustments should be made simultaneously with promotion to the jobs of higher rating. Prompt recognition in compensation and status are the means for stimulating and maintaining interest in the learning process. Morale will be high under this policy of advancement, based on the fair and unprejudiced consideration of merit. Where merit and other factors are equal, preference should be given to length of service. Periodic review of rates by the appropriate supervisor is essential to see that deserving employees aren't "forgotten" and that equity and fairness are maintained.

Such a policy of upgrading, coordinated by a central placement service, results in rapid and efficient training of a working force with greater flexibility and effectiveness. This is an important practice.

Originally issued
August 15, 1941

II—Job Instruction

The Training Within Industry program of Job Instruction was developed in order to provide management with a tool whereby supervisors could acquire skill in instructing.

The material in the "Job Instruction Sessions Outlines" covers the content as handled in five 2-hour meetings for a group of ten supervisors.

JOB INSTRUCTION

SESSIONS OUTLINE
and
REFERENCE MATERIAL



Copy No._____
For the Personal Use of

_____

As a War Production Trainer

Training Within Industry Service
Bureau of Training
WAR MANPOWER COMMISSION
Washington, D. C., 1944

A short, intensive training program for supervisors and job instructors presented by Training Within Industry Service in cooperation with Federal and State representatives for Vocational Education.

TRAINING WITHIN INDUSTRY SERVICE
BUREAU OF TRAINING
WAR MANPOWER COMMISSION
Washington, D. C. : 1944

WAR MANPOWER COMMISSION

WASHINGTON, D. C.

May 1944.

To the War Production Trainer:

You have an opportunity to render a service of constructive and far-reaching significance through this Job Instruction Plan.

You also accept a major responsibility when you assume leadership in this plan. To a large number of industrial men, YOUR presentation of it may represent all they know, first hand, of the whole war training effort and its vital role in war production.

You should strive with all the energy and diligence you possess to lead each group in Job Instruction in the very best way possible—and to do a still better job with each succeeding group.

To assure a uniform high standard on a Nation-wide basis, you should work from this outline ALWAYS. Don't deviate from it. Don't trust to your memory, regardless of the number of times you may present the plan. It is not difficult and if you follow instructions you can't fail—furthermore, you will find it an interesting job.

Once again, leadership in Job Instruction presents an opportunity and an obligation.

Sincerely,

C. R. Dooley

C. R. Dooley, Director,
Training Within Industry Service.

Preview of the Standard 10-hour Job Instruction Plan for War Production

FIRST SESSION—2 hours.

Introduction.
Importance of training to production.
Instructing ability as a personal asset.
Demonstration of faulty instruction.
Demonstration of correct instruction.
The FOUR BASIC STEPS.
Distribution of "How to Instruct" cards.
(Selection of 2 volunteers for the next session.)

SECOND SESSION—2 hours.

Two volunteer "instructing" demonstrations, to bring out the NEED for the four things an instructor must do to "get ready."
Practice in making job breakdowns of:
(a) The fire underwriters' knot.
(b) The two jobs presented during the first hour.
Summary: The four things an instructor does to "get ready."

THIRD SESSION—2 hours.

Drill on training time tables.
Three practice instruction demonstrations with coaching on Job Breakdowns.

FOURTH SESSION—2 hours.

Four practice instruction demonstrations with coaching on Job Breakdowns.

FIFTH SESSION—2 hours.

Three practice instruction demonstrations.
Conclusion and Summary.
(a) Questions.
(b) Importance of good Job Instruction to production.
(c) Necessity of using the Job Instruction Plan.

ADHERE STRICTLY TO THIS PLAN—DO NOT DEPART FROM IT OR CHANGE IT

Sessions Outline

Session I

BEFORE the Session starts:

Be there 15 minutes ahead of time. Be sure you have sufficient 5" x 8" cards for names, several pieces of electric light wire, a supply of problem sheets, and sufficient "How to Instruct" cards. Arrange the chairs around the table if there is one. If not, arrange them in a U shape. Don't let your members' first impression be one of a "classroom." Remember, in starting this job it is your responsibility:

- "to have the right tools, equipment, and materials"
- "to have the work place properly arranged."

Time Table	I. OPENING the Session.	References
(Allow 25 min.)	1. Establish informal atmosphere and put group AT EASE.	Pages 45–46
	2. NAMES.—Identify yourself and get members' names and company or companies. Explain your own industrial connections. Use folded cards for displaying names where appropriate.	
	3. DISCUSS THE SUPERVISOR'S FIVE NEEDS In these meetings we are going to use the term "supervisor" a great deal. Some of you are supervisors, some of you perhaps are instructors. When you instruct, you are performing a supervisory function. "For the purpose of our discussions when we refer to the supervisor we mean anybody in charge of people, or who directs the work of others."	

(over)

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

Good supervisors have always realized that they have five needs.

Let's take a look at these needs. They are:

"1. knowledge of the work
"2. knowledge of responsibilities
"3. skill in improving methods
"4. skill in leading
"5. skill in instructing"

NOTE: Count the five needs on your fingers as you enumerate.

"1. Knowledge of the work refers to the kind of information which makes your business different from all other businesses:

material tools operations
machines processes technical skill

Some people have spent their lifetimes in their work and are still acquiring knowledge of their work. If they move to another industry, a new knowledge of work has to be learned.

We are not going to attempt to meet this need in these sessions.

"2. Knowledge of responsibilities refers to the particular company situation regarding:

policies safety interdepart-
agreements rules mental re-
regulations schedules lationships

These are different in every company or plant. Hence this knowledge of responsibilities must be supplied locally.

Time Table

References

Every supervisor to do his job must have a clear understanding of his authority and responsibilities as a part of management.

These local responsibilities are the 'ground rules' under which every supervisor has to work—but we are not going to attempt to meet this need in these sessions.

"3. Skill in improving methods deals with utilizing materials, machines, and manpower more effectively by having supervisors study each operation in order to combine, rearrange, and simplify details of the job.

This skill is practiced in Job Methods sessions.

"4. Skill in leading helps the supervisor to improve his ability in working with people.

There are basic principles that, when applied day in and day out, will tend to keep relations smooth and prevent problems from arising.

"5. Skill in instructing is concerned with helping supervisors develop a well trained work force:

have less scrap, rework, and rejects
have fewer accidents
have less tool and equipment damage

This skill is practiced in Job Instruction sessions."

(over)

Time Table

STRESS THE FACT THAT SKILLS ARE ACQUIRED BY PRACTICE

References

The supervisor is not born with these skills but he must acquire them by actual practice individually.

In these five 2-hour sessions, we will discuss the skill in instructing which we shall call Job Instruction.

Those who successfully complete this program will receive a certificate of recognition from the War Manpower Commission.

4. WHAT THIS IS ALL about:

   - "I am not here to tell you how to run your jobs; I don't necessarily know anything about your technical jobs."

   - "I am here to discuss one problem common to all—JOB INSTRUCTION."

   - "I was on your side of the table a few weeks ago—was sold and am now enthusiastic—have applied plan to my job—consider it REAL PRIVILEGE to have part in passing the plan on to others."

   - This is a WAR of PRODUCTION. The armed forces must have fighting equipment—in overwhelming quantities to achieve victory in the air, on the land and on the sea. Page 47

5. There are three major groups to be trained: Millions of PRESENT EMPLOYEES must learn new or higher skills EVERY DAY, as a result of:

   - Engineering changes.

   - New machines.

   - New types of jobs.

   - New and higher inspection standards.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- Promotions.
- Transfers.
- All kinds of new production requirements.
- SEVERAL MILLION present employees were taken on during the past year. Are they all working up to standard?

Hundreds of thousands of NEW EMPLOYEES must be trained.

An unknown number of DISPLACED EMPLOYEES in non-essential industries must be transferred to active war production;

25 min. to here

- must be trained to do, in many cases, totally different kinds of work.

(Allow 20 min.)

6. WHY TRAINING IS VITAL to every supervisor, every experienced employee. Pages 47–48

- Do you have people from these groups in your department?
- "Are they causing you any problems?"
- Distribute PROBLEM SHEETS; explain these are problems volunteered by men like themselves in several hundred war industries. Page 49
- Review sheets with two main questions:

  (1) Does this group have similar problems?

  (2) "Could these problems be solved or helped if the work force were better trained?"

- Bring out CLEARLY that about 80 percent of problems of this kind can be solved or helped if he has a better trained work force. More and more of the "experienced employee's" job is training.

(over) WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- Competence as a GOOD TRAINING MAN is one of the MOST IMPORTANT qualities of a supervisor. Everyone can PERSONALLY gain much from this program.

7. WHAT IS THIS PROGRAM?

- TRAINING is a broad field, composed of many phases.

- ONE PHASE only is to be discussed at these sessions, namely:

Job Instruction
or
How to get A man to do A job
correctly
quickly
conscientiously
} *Place on blackboard*

- Getting EACH man to do EACH job correctly, multiplied by all the men in the department, represents much of the ANSWER to WAR PRODUCTION.

45 min. to here

(Allow 10 min.)

II. DEMONSTRATE FAULTY INSTRUCTION.

Pages 50–52

NOTE: Use THREE different members; 1 for telling, 1 for showing, 1 for correct instruction.

1. Introduction to "faulty instruction."

- Ask:

  - "How do we get A man—NEW or EXPERIENCED to do A job?"

- Make statements:

  - "TELLING a man how to do a job may be an excellent means of instruction when used PROPERLY. But it has limitations—and much scrap and grief can result from this method when used alone."

  - "To point out the limitations of TELLING, a simple illustrative job will be used. This job is from the electrical trade—the FIRE UNDERWRITERS' KNOT."

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- "This job is only an EXAMPLE. You should observe it in terms of YOUR JOBS in YOUR departments."

- Explain you are "taking apart" the process of instruction and examining each part separately.

- Select a member near you: Do not ask him to stand. Turn to him. Address him personally.

- Ask:

  - "Do you know how to tie the knot?" (If he knows, turn to another.)

  - "Let me TELL you how to tie a fire underwriters' knot. Listen closely."

Note to Trainer: Put your HANDS IN YOUR POCKETS: Have wire in table drawer or your pocket. Don't have wire in sight.

2. TELL the member how to tie the fire underwriters' knot, slowly, accurately, and IN DETAIL. Pages 50–51

   -Then hand the member the cord and ask him to tie it.

   -After he tries to tie it, twist loose ends back together and LAY WIRE ON THE TABLE. Don't hold it or fuss with it!

3. Point Out:

   -Failure was NOT the member's fault.

   -TELLING, alone, is NOT GOOD INSTRUCTION.

   -Most people just don't "get it" through "telling."

   -Many operations are difficult to describe in words.

   -Few of us can use the exact words necessary, anyhow.

Time Table

References

- Things seem "complicated" when listening to words.
- It's hard to "tell" the right amount and know whether it is "going over."
- And many other reasons known by most of us when we stop to think of it.
- MUCH OF THE INSTRUCTION IN THE SHOP IS TELLING—THOUSANDS OF WORKERS ARE BEING TOLD AT THIS VERY MOMENT. HOW MANY OF THEM REALLY UNDERSTAND?
- "This kind of instruction is the real cause of some of the problems on the problem sheet."
- Emphasize that IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

55 min. to here

(Allow 10 min.)

4. SHOWING is another common means of instruction in the shop. Pages 51-52
   - It also is an excellent method when used properly. But it also has limitations—and serious ones.
   - Explain again that you are "taking apart the process of instruction and examining each part separately."
   - Turn to another member near you. Do not ask him to stand. Address him personally.
   - "Do you know how to tie the knot?" (If he knows, turn to another.)
   - "Again this sample job is only an EXAMPLE.
   - "Think of it in terms of YOUR OWN JOB in YOUR OWN DEPARTMENT."
5. SHOW member how to tie the knot, by doing it once in front of him.

   NOTE: BE SURE he sees it BACKWARDS. DON'T EXPLAIN—REMAIN ABSOLUTELY SILENT.

   - Then hand the cord to the member and ask him to tie it.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

NOTE: If he ties it, but backwards, this is just as useful as though he failed to tie it. If by chance he ties it correctly, compliment him, and turn to another member.

After member completes trial, untie knot, twist loose ends back together and LAY WIRE ON THE TABLE. Don't hold it or fuss with it.

6. Point Out:

- Failure was not the member's fault.
- SHOWING, alone, is NOT GOOD INSTRUCTION.
- He saw the knot tied backwards.
- Even when seeing a job from the proper angle, most people don't "get it."
- Most of us just "copy motions"; this doesn't mean we understand.
- Many motions are hard to copy.
- "Tricky points" are missed.
- We don't know what to look for.
- We can't translate what we see into what we should do.
- COUNTLESS THOUSANDS OF EMPLOYEES ARE BEING SHOWN HOW TO DO THEIR JOBS AT THIS VERY MOMENT. HOW MANY OF THEM UNDERSTAND?
- "This kind of instruction is the real cause of some of the problems we saw on the problem sheet."
- Emphasize that IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

(over)

Time Table

References

7. Point out:

- Men can learn their jobs with enough "telling and showing," but:
- These are not SURE and DEPENDABLE methods.
- There is a SURE and DEPENDABLE method that works EVERY TIME, if it is but applied.
- This method represents the outgrowth of 25 years of test in the shops of the country.
- It was formulated by practical industrial men.
- It is being made available to all war industries.

1 hr. 5 min. to here

(Allow 15 min.)

III. DEMONSTRATE CORRECT INSTRUCTION.

Pages 52–55

Announce:

1. "We are now going to 'take a look at' the correct 'sure-fire' method."

   Explain setting:

2. "I will be a 'lead man' in an electrical shop. This man has been in the labor gang for several months. He has been transferred to my group. I'm going to make an assembler of electrical equipment out of him. I'm allowing myself 5 days in which to do it. He is going to learn the first part of his new work—the fire underwriters' knot—now."

3. Select another member, and have him come up in front of the group.

   Ask group again to note the method of instruction, NOT the job of knot tying.

4. GIVE CORRECT INSTRUCTION.

   NOTE: All your following work depends upon how well you do this job. Do it PERFECTLY.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

-Follow the FOUR BASIC STEPS.

↓

-Do a complete, correct instructing job in this demonstration. Make EACH of the FOUR STEPS stand out clearly and distinctly. Make the key points stand out.

1 hr. 20 min. to here

(Allow 35 min.)

5. STRESS that the successful instruction followed a definite but simple plan.

6. Establish the FOUR BASIC STEPS.

-Draw out by brief discussion what the instructor did in each step.

NOTE: To the extent you can, cite examples from your own experience to illustrate some of the points as you put them on the board.

-List subheads for Step I first, then the Step. Do the same for the other 3 steps. Follow the "How to Instruct" card. Get every point on the board.

-Discuss briefly WHY each subpoint cannot be left out, and WHY it is a part of a particular step and not of another.

-Stress: IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

NOTE: Following are the FOUR STEPS to be placed on the board.

STEP I. PREPARE the worker.
Put him at ease.
State the job and find out what he already knows about it.
Get him interested in learning job.
Place in correct position.

(over) WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

STEP II. PRESENT the operation.
Tell, show, and illustrate one IMPORTANT STEP at a time.
Stress each KEY POINT.
Instruct clearly, completely, and patiently, but no more than he can master.

STEP III. TRY OUT performance.
Have him do the job—correct errors.
Have him explain each KEY POINT to you as he does the job again.
Make sure he understands.
Continue until YOU know HE knows.

STEP IV. FOLLOW UP.
Put him on his own. Designate to whom he goes for help.
Check frequently. Encourage questions.
Taper off extra coaching and close follow-up.

1 hr. 55 min. to here

(Allow 5 min.)

IV. CONCLUDING THE SESSION.

1. Distribute "How to Instruct" cards.

2. Explain that the following sessions will be devoted to "learning by doing" in which each member will be given opportunity for practice in actual instruction.

3. Call for two volunteers (three if there is likelihood of absence) to put on instructing demonstrations at the next session.
   - Ask these volunteers to remain after the session for further directions.

4. If time permits, ask the remaining members to state the jobs they will "bring in" at the later sessions. (Often this whole question can be settled at the end of Session I so that only a review of jobs chosen is needed at the close of Session II.)

2 hrs. to here

5. Close the session promptly at scheduled time with appropriate remarks.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

6. Discuss the following points with the volunteers after the session is closed: References

   a. Tell them to instruct just as they normally would on the job, using the 4 steps as best they can, but without any special preparation.

      Explain – their demonstrations are ONLY to HELP YOU bring out convincingly the normal mistakes most EVERYONE makes, so you can "put over" the "get ready" points.

      Tell them to expect many technical criticisms. These are just "part of the program" – not personal in any way.

   b. Choose an actual job that can be brought into the meeting – no tricks or puzzles.

   c. Choose a SMALL UNIT that can be done in 10 to 15 minutes. However, if the volunteers are inclined to choose too long jobs, let them do so. This will provide a good point for you to comment upon at the next session. (Of course, be prepared to STOP each of the demonstrations at the end of 15 minutes to avoid taking up too much time in the next session.)

   d. Have them bring in all necessary tools, equipment, and supplies.

   e. Explain again that they are "part of the standard program" to bring out some points. Thank them for helping you – and the program.

Sessions Outline

Session II

BEFORE the Session starts:

Be there 15 minutes ahead of time. Write the FOUR STEPS (with sub-heads) on the blackboard. Be sure that chairs are arranged around a table. If no table is available have chairs arranged in a U shape. Have a supply of job breakdown sheets, sample completed break-downs and time table, some blank sheets, and several pieces of wire.

Time Table		References
(Allow 5 min.)	I. OPENING the Session.	
	1. Greet group, expressing gratification at their interest in improving WAR PRODUCTION through better JOB INSTRUCTION, as evidenced by their presence.	
	2. By appropriate remarks create INFORMAL ATMOSPHERE and put GROUP AT EASE.	
	3. Review first session briefly.	
	4. Emphasize keynote: IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.	
	II. VOLUNTEER INSTRUCTION DEMONSTRATIONS.	
	1. Announce that, for the FIRST hour, the FOUR STEPS of instructing will be demonstrated by two group members, who will instruct other members how to do new jobs.	

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

5 min. to here

(Allow 15 min.)

References

- Explain that these volunteer demonstrations are NOT expected to be perfect, that they are put on to bring out some fundamental points to be discussed at this session.

- Ask members to take their "How to Instruct" cards and note how nearly the sample job-instructions follow the correct procedure.

2. Ask for a volunteer to be the "learner" for the first job.

   - Be sure the "learner" does NOT already know the job.

NOTE: KEEP CLEARLY IN MIND WHAT YOU ARE LOOKING FOR:

- *You are seeking to have members PROVE TO THEMSELVES that instruction on the job can only be done properly when instructors GET READY to instruct. The sole purpose of these two demonstrations is to SELL THE NEED AND NECESSITY that Supervisors do definite planning BEFORE instructing.*

Jot down on a breakdown sheet, steps and key points as nearly as you can catch them as the demonstration is put on.

LOOK FOR these points, in particular, during the demonstration:

- *IN STEP I:*

  - *Was the instructor's attitude toward the man constructive?*

  (Don't look for anything more in Step I at this stage of the program. It isn't the point you are trying to emphasize.)

Time Table

References

– *IN STEP II:*

LOOK FOR COMPLETENESS, CLEARNESS, and ORDERLY PRESENTATION.

Page 66

– *List steps and key points in STEP II so that key points checked in STEP III will appear directly opposite them on the page. Use form shown on page 66.*

– *Leave blank spaces where the instruction is "hazy," or something appears to be omitted.*

– *Note places where the instructor "back tracked," or brought in new ideas at the "wrong place," or "jumped about" from one point to another.*

(*STEP II is THE most important step to look at to bring out the need for breakdowns.*)

– *IN STEP III:*

LOOK FOR COMPLETENESS OF CHECK, and HOW NEARLY THE POINTS CHECKED. FOLLOWED THE POINTS PRESENTED.

– *List key points in Step III opposite those brought out in Step II, to the extent they can be "matched up" at all.*

– *Look for new ideas presented in Step III that were omitted in Step II.*

– *Look particularly for the key points that were missed, or not stressed, or not checked clearly.*

– *Try to find several key points on which the worker was not instructed, so you can stress: IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.*

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

– *IN STEP IV:*

– *Did the instructor designate someone to whom the worker should go for help?*

Don't look for more in this step. You are only trying to establish the need for job breakdowns. (End of note to Trainer.)

20 min. to here

(Allow 5 min.)

3. COMMENT on the Demonstration:

a. Ask the volunteer: Do you think your instruction would have been better if you had had more time to plan?

b. Ask the group to comment on the demonstrations.

NOTE: Don't expect the comments to be particularly helpful for your purpose.

c. Bring out the discrepancies, errors, and omissions you have observed which they missed.

NOTE: SMILE as you criticize—always.

- Point out that the job was "too big" for one unit, if such was the case.
- Bring out any trade or technical terms that were used, but not explained.
- Point out lack of orderly presentation.
- ASK THE "LEARNER" QUESTIONS ON POINTS THAT WERE NOT MADE CLEAR BY THE INSTRUCTOR.

d. Explain again that the volunteer was good enough to "give us a picture of how we really instruct on the job." Explain that he knew your purpose in advance, and that your comments were SOLELY to bring out the PROBLEMS and FAULTS in instruction. They were NOT directed at the volunteer personally. THANK him for his help.

25 min. to here

(over)

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

(Allow 20 min.) 45 min. to here

4. Call on the SECOND volunteer and handle this demonstration in the same way as the former one. References

(Allow 5 min.)

5. CONCLUDE that jobs must be "thought through" more carefully, before instructing.

   - We "think" we know a job when we really don't.
   - We KNOW IT SO WELL that we overlook the points that "stump" the learner.
   - We often KNOW IT SO WELL that we don't PLAN how to put it over to another.
   - These weaknesses, unfortunately, are almost universal.
   - They are typical of most of the instruction in the shop at this very minute.
   - These demonstrations were probably BETTER than the instruction being given throughout industry.
   - Thank volunteers again for having helped bring out these points.
   - Conclude with, "We need more than just the four steps to get jobs 'over' to workers."

50 min. to here

(Allow 15 min.)

III. WHAT an instructor should do to GET READY to instruct.

1. Ask members to turn to the "How to Get Ready" side of the card.
2. Read the first Get Ready point "Have a Time Table."

   NOTE: Don't elaborate. Explain that this point will be discussed fully during the next session.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

3. Read the next Get Ready point, "Break down the job." References

   - Announce that for the next hour the group will work on job breakdowns. This "get ready" point requires special attention.

   - The two volunteer demonstrations would have been better had breakdowns been made.

4. Stress as they apply any or all of the following:

   - The instructors wouldn't have tried to put over too much.

   - The information would have been presented more clearly.

   - The instructor wouldn't have "jumped about" from one point to another.

   - The "critical" or "important" or "key" points would have been made clear.

   - (or whatever points should be stressed)

   - Conclude with, "Lack of clearly organizing the job in one's mind is the reason for poor instruction, scrap, accidents, delays, mistakes, discouraged workers, in fact all of the problems on the sheet we looked at at the last session."

5. Break down the fire underwriters' knot.

   a. Here's a quick simple way to make a breakdown.

   b. Explain that here is what you did to get the fire underwriters' knot clear in your mind before instructing.

      NOTE: Pass out blank Breakdown Sheets and explain headings, important steps, and key points.

(over)

Time Table

c. Take wire and go to the board.

References

- Write down headings PART and OPERATION. Fill in.
- Do the first important step, then write it on the board.
- Do the second important step, write it down, and so on through.
- Then tie the knot again, step by step, bringing out each key point. Ask yourself aloud the three questions for each step and answer them yourself.

d. Establish the breakdown on the board in numbered steps as follows:

Part: Twisted Lamp Cord	Operation: Tie Fire Underwriters' Knot
Important Steps	Key Points
(1) Untwist and straighten	6 inches.
(2) Make r. h. loop	in front of main strand.
(3) Make l. h. loop	pull toward you. under stub. behind main strand.
(4) Put end through loop	
(5) Pull taut	ends even, knot snug.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

e. Discuss the breakdown.

- Purpose is NOT to:
  - cover every conceivable step, point, motion or precaution.
  - or write a description of the operation.
  - or provide instruction sheets for employees.
- Purpose IS to:
  - help organize the operation in the instructor's mind.
  - be sure of the one best way the operator should do the job.
- It is just "a note from ourselves to ourselves."

6. What is an "Important Step."

a. An important step is a logical segment of the operation when something happens to ADVANCE the work.

For example, in putting a blade in a hacksaw:

- "Take hold of the wing nut" is NOT a step worth noting as a reminder.
- "Screw down wing nut" is a step, but not an important step.
- "Adjust the tension" is the IMPORTANT STEP.
- "Adjusting the tension" is the real thing that happens. It is unnecessary to go into greater detail.

(over)

Time Table

References

These breakdowns are not hair-splitting micro-motion studies. They are just SIMPLE, COMMON SENSE reminders of what is really important to "put over" in a job.

b. Read to the group part of this possible detailed description of numbered steps of the knot operation as a means of showing later how simple breakdown reminders can be. Stress that these are all the steps, not just the important steps.

Steps in Tying Fire Underwriters' Knot

(1) Pick up wire.

(2) Hold with left hand, between thumb and first finger, 6 inches from the end.

(3) Untwist loose ends, forming a V.

(4) Straighten loose ends between thumb and first finger of the right hand.

(5) Hold wire at the beginning of the V.

(6) Take the right-hand loose end with right hand, making clock-wise loop, bringing loose end across in front of the main strand.

NOTE: Usually this is far enough to read.

(7) See that loop is about 1 inch in diameter and stub protrudes to left of main strand about 2 inches. Hold the wire at the junction of the loop and the main strand.

(8) Take other loose end with right hand.

(9) Make counter-clockwise loop. To make this loop, pull wire forward, pass it underneath stub, behind main strand.

(10) Pass the loose end through right-hand loop, from back to front.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

(11) Hold ends evenly between thumb and first finger of right hand.

(12) Pull knot taut.

(13) Shape knot between thumb and first finger of left hand as it is pulled taut.

- Point out that there were 13 steps and 163 words in this detailed description, and only 5 important steps and 36 words in the brief, correct breakdown. The instructor might use the full 163 words in explaining the knot—or 200 or 300. But to GET STRAIGHT IN HIS OWN MIND just what the operation is, the 36 words are all he needs.

7. What is a "Key Point"?—Review quickly.

- Large portion of every job is easy to learn.

- It is the 5 or 10 percent that represents the "hard" or "tricky" parts. These require the time to learn—represent the real skill necessary.

- "Key point" was the term chosen to represent whatever is the "key" to doing a step properly.

- Key points mean, in their order of importance:

(a) Those things that "make or break" the job.

(b) Hazards (in many jobs these rank first).

(c) Things that make the work easier to do—"knack," "trick," "feel," "savvy," "special timing," "bit of special information."

(over)

Time Table

References

- Key points do not mean every conceivable thing that is to be watched, or which might go wrong. There is no need to go that far into detail.

  Knowing what key points are and how to pick them out quickly and easily is perhaps the MOST IMPORTANT single thing in Job Instruction.

Examples of key points (cite as appropriate):

- "Feel." When putting a micrometer on a piece of stock, the key point is "how tight"— a matter of "feel."

- "Knack." When riveting, an important point is to know when to remove the pneumatic riveter. The "key" to this point is to listen to the riveting. The sound will change when the pieces are solidly together.

- "Timing and placing of heat." When welding there are, among others, two main key points: (1) apply the flame ahead of the weld and (2) get the metal the right heat, a matter of observing the color and behavior of the metal.

- "Hazard." When using a knife, a key point is to "cut away from you." When lifting a load with an overhead crane, a key point is to pull the chains or cables up taut, then hesitate for a moment to check the hitches, before lifting the load.

- "Special motion." When catching hot rods shooting out of rolling mills, the key point is to swing quickly the flowing rod in an arc away from you before inserting the end in the next set of rolls.

- "Special information." On some kinds of electrical wiring the key point is to attach the identified negative wire to the tinned screw, and the positive wire to the brass screw.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

(1 hr. 5 min. to here)

"Knack in judging sound." In mines, the strength and safety of the roof is determined by tapping the roof rock with a steel bar. The "sound" as the bar strikes the roof tells the story. Judging the sound is the key point.

References

(Allow 35 min.)

8. Break down on the board one of the volunteer demonstration jobs—the simpler one first.

Use the following procedure:

Help him identify the part and operation and have him write it on his breakdown sheet. (You write it on blackboard.)

Have him start doing the job.

When the job has been advanced (the first important step) have him tell you what was done. Have him write the first important step on his breakdown sheet. (You write it on board.)

Continue same procedure until unit is complete.

Have him do the first important step again, and ask himself the three key-point questions.

Have him write the key points on his breakdown. (You write them on board.)

If he seems to be missing details that are key points, "smoke out" with such questions as:

Does it make any difference if - - - - ?

What would happen if - - - - ?

Why did you - - - - ?

Continue until all the important steps are finished.

NOTE: Have members copy the breakdown on the sheets provided them as it is developed.

(over)

Time Table

References

9. Break down the other volunteer job.

10. Summarize:

- Make clear the difference between a STEP and a KEY POINT.

- Make clear that FEW WORDS are required.

- Make clear that breakdowns can be done EASILY and QUICKLY after a little practice.

11. Stress value of "breaking down" operations on which they instruct.

Distribute sample job breakdowns and time table. Pages 56–57

Discuss Samples 3 and 3A.

Stress:

Everyone should make his own breakdowns.

Actually do the job.

List the important steps.

Find the key points.

What makes or breaks the job?

Injures the worker?

Knacks that make the work easier to do?

- Breakdown sheets are NOT to be given to workers. They are for the instructor's own use in CLARIFYING and ORGANIZING his own thinking about the job.

- Finished breakdown sheets might be kept for ready reference.

(1 hr. 40 min. to here)

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table (Allow 5 min.)

IV. Have Everything Ready and the Work Place Arranged. References

1. Refer group to "How to get ready" side of the card.

2. Read the last two "get ready" points, "Have everything ready" and "Have the work place properly arranged."

   Point out:

   - That the foreman, leadman, experienced worker should SET THE RIGHT EXAMPLE for every worker.
   - Makeshift tools should not be used.
   - Apologies for using wrong equipment hurt a worker's respect for his leader.
   - Lack of materials or "forgetting" something makes for poor work standards.
   - Poorly arranged bench, or cluttered up tool chest, or desk piled with papers, or any single thing that is wrong sets a poor example to employees.

3. Discuss the above points briefly, pointing out that:

   - These are well-known failures.
   - Nothing new in them.
   - OFTEN OVERLOOKED, however, because they appear small and unimportant.
   - We should never be so busy that we can't SET THE RIGHT EXAMPLE for employees.
   - That's what foremen, leadmen, and instructors are on their jobs to do.

(1 hr. 45 min. to here)

(Allow 15 min.)

V. SUMMARY and discussion of NEXT SESSION.

1. Summarize the "get ready" points by stressing that they should and can be done quickly. Often they can all be done in but a few minutes.

(over)

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

2. Refer to "How to Instruct" cards, pointing out that the two sides outline the WHOLE Job Instruction plan.

3. Each member, including the two volunteers at this session, should select a SIMPLE JOB from those he actually supervises and be prepared to "put it over" at the next session.

   a. Announce that as many members will demonstrate instruction at the next session as time will permit, and the rest at the following sessions.

   b. Have each member state the job he intends to use as his practice demonstration.

      - If job selected is too big a job for simple demonstration, help member to select a simpler job.

      - Each member should plan to use a job that will consume no more than a 15-minute period.

      - Each should bring all necessary tools and supplies to provide for ample "practice" in Step III.

   c. Be sure each member understands that the complete, correct instruction procedure is now expected, i. e.:

      - The four "get-ready" points, particularly the job breakdown. Make clear: Each member should bring his COMPLETED breakdown sheet.

      - The "four steps" used in the instruction itself.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

4. Close meeting with BRIEF "SALES" STATEMENT on personal advantages of becoming good instructors.

   a. The following practice and drill sessions will enable them to "get the feel of the instructing tools."

   b. Practice will develop in them the correct instructing habits so that effective instructing methods will "come natural" to them.

(2 hrs. to here)

5. Adjourn meeting promptly at scheduled time.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Sessions Outline

Session III

BEFORE the Session starts:

Be there ahead of time. Have a supply of breakdown sheets for yourself and all members. Have chairs arranged properly.

Time Table		References
(Allow 30 min.)	I. OPENING the Session.	
	1. Review briefly:	
	– FOUR things necessary to GET READY to instruct, particularly the Job Breakdown.	
	– FOUR BASIC STEPS of instruction.	
	II. Present Time Table.	
	1. Now the group will work with the first "get ready" item on the card—"Have a Time Table."	
	– Refer to previous mention of Time Table in Session II.	
	2. Discuss quickly:	
	– How much skill should the workers have?	
	– By what date?	
	– So that the training of workers can be done by PLAN and not by ACCIDENT.	
	– WHO should be trained?	
	– for WHICH job?	
	– by WHAT date?	
	3. Here is a QUICK, EASY way to make a training time table for your force.	
	– Distribute blank sheets of paper.	
	– Go to the board. Build up the form—do not ask group to discuss—present it.	
	– Draw chart lines quickly on the board. Ask members to draw lines on blank sheets.	Page 56
	NOTE: Use dates from current calendar.	

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- "Here are a few operations for which one supervisor is responsible. Let's use them to illustrate how to make a TIME TABLE."
- "Your jobs will be different, of course. The idea works out the same everywhere, however."

4. Fill in at the top of sheet and explain purpose.
   - The supervisor's name—Bill Smith.
   - The supervisor's department—Machining.
   - The date - - - - 2/1/44.
5. "Next, Bill Smith filled in the jobs in his department across the top. They were DRILL, BORE, REAM, FACE, TAPER-TURN, BURR and BURNISH." (Place in time table.)
   - "In this case Bill's workers did a VARIETY of things. He listed the jobs his workers did.
   - "If his workers had all done the SAME thing, his headings would have been listed by:
     - 'classifications' or
     - 'levels of skill' or
     - 'types of machines'.
   - "For instance, if the workers were coremakers in a foundry, the job headings may be listed as 'small coremaker,' 'medium coremaker,' 'large coremaker,' and 'helpers'.
   - "Or if the department did only tapping, the listing may be by machines. For example, 'Boyce,' 'Bakewell No. 1,' 'Haskins,' etc."
6. Then put the workers' names down the left side—"White," "Nolan," "Black," "Jones," "Green," "Brown," and "Riley."
7. "Then, Bill Smith checked off the jobs each worker could do."
   - Establish the checks as follows (do not enter the dates as yet):

(over)

Time Table

References

Bill Smith Machining Dept. 2/1/44	DRILL	BORE	REAM	FACE	TAPER-TURN	BURR + BURNISH		
White	✓	✓	✓	✓	✓	✓		
Nolan	✓	✓	✓	—	2/25	✓		
Black	✓	✓	✓	✓	✓	✓		Mar. 1 Induction
Jones		✓	✓			✓		
Green	✓	✓				✓		
Brown	✓	✓	✓			✓		
Riley	2/20					✓		

8. "Next, Bill reviewed the time table to see if there were any urgent training needs in his department.

   - "First he reviewed the list of workers for possible changes by:

     separations,
     promotions,
     transfers, etc.

   - "In this case he knew Black was scheduled for induction March 1 and made a note of it on the side." (Fill in "March 1, Induction," see Time Table.)

   - "Then he reviewed the list of workers again from the angle of POOR PERFORMANCE as indicated by:

     excess rejects,

     injuries,

     damage to equipment, etc.

   - "Bill felt his workers' performance was satisfactory.

   - "Finally he reviewed the job headings, considering:

     - How he was meeting present PRODUCTION QUOTAS in all jobs.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- Whether there were any contemplated INCREASES in production.

- "Bill knew that a change was coming through in three weeks that would require one more man on the drilling operations.

- "He had 'spotted' two urgent training needs. Now he had to make plans to meet them.

9. "In considering WHO should be trained on WHICH job, and by WHAT date, Bill decided that:

   - "Riley was the logical man for the drilling job and he would have him trained by February 20. This would have Riley trained before the change took place." (Fill in date 2/20 in Time Table.)

   - "Black's induction would leave him short a man on Taper-turning. He selected Nolan as the logical person and set February 25 as the dead line for training him." (Fill in date 2/25.)

10. Review quickly the procedure for making a Time Table.

    - Identify sheet—supervisor's name, department, and date.

    - List job headings:

      A variety of things--list "jobs."

      All the same thing—list by "classifications" or "levels of skill," "machines," etc.

    - List workers' names.

    - Check off jobs.

    - Spot training needs. Review list of:

      Workers:

      Turnover

      Poor Performance

(over)

Time Table	Job Headings	References

Meeting present production quotas
Contemplated increases in production

- Plan to meet needs.

  WHO should be trained
  on WHICH job
  by WHAT date

11. Summarize:

- Let's PLAN our training—don't just let them learn.
- When the "pressure is on" for production and men must learn new skills you often hear supervisors say:

  "It takes time . . ."

  "A lot of mistakes always happen . . ."

  "Let 'em learn, that's the only thing you can do . . ."

BUT

- The way to get results is to determine "HOW MUCH TIME"—then SHORTEN that time, if possible, through INTENSIVE INSTRUCTION. Don't be content with—"IT TAKES TIME."
- Time tables are easy to make. One can be put together in 10 to 15 minutes.
- They can be revised and brought up to date in five minutes.
- Time tables should be reviewed whenever any changes are coming in personnel, design, output, quantity, or anything that might indicate training is needed to keep production rolling.
- Conclude by driving home the thought that men's lives and the war production program depend on good PLANNING, and training is no exception. Workers must KNOW their jobs before they can PRODUCE. In training workers the important thing is "How short a time" not "it takes time."

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

30 min. to here

12. Have each supervisor start his own time table now. References

- Coach individually as you circulate around the table.
- Stop at end of time limit.
- Ask each to bring his own completed time table to the next session.

III. Explain Practice Instruction. Pages 58–66

(Allow 5 min.)

1. Announce:
   - Everyone should put on his "thick skin" because everyone is going to "do his stuff" before the group and invite criticisms and suggestions.
2. It is a real advantage to each member to get the benefit of others' comments, in a thoroughly FRIENDLY and HELPFUL atmosphere.
3. Explain how demonstrations and comments will be made.
   - Refer to "How to Instruct" cards.
   - Explain that members are now expected to follow the WHOLE PLAN—the FOUR GET-READY points, as well as the FOUR BASIC instruction steps.
   - Explain that you would like to look over each member's job breakdown sheet while he is instructing, just to see if he has "caught the knack" of breaking down a job—that you will return the sheets after each demonstration.
   - Ask each member to get his tools, supplies, and work place arranged just as he wants, and that after the instruction starts, any errors or "fumbles" will be commented upon.
     - Each member should describe the SHOP setting of his job before he starts, i. e. –
       - Whether he is foreman, leadman, or what.

(over) WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- Whether man is experienced, being transferred, or green.

(35 min. to here)

- *Pass out blank breakdown sheets. Ask members to jot down what they can "catch" of STEPS and KEY POINTS.*

IV. PRACTICE INSTRUCTION (3)

(Allow 15 min. for each demonstration and about 10 min. for comments)

1. Call up one member to put on his instructing demonstration.
2. Call for volunteer to serve as "learner."

   NOTE: See that each member serves as the "learner" in one demonstration. See that the "learner" does NOT know the job, wherever possible.

3. Ask the "instructor" for his job breakdown sheet.
4. Have him carry through his demonstration.
5. Comment on the demonstration.
   - Use the standard procedure for constructively commenting on practice demonstrations. Pages 58–66

   NOTE. If "special instruction problems" are involved, discuss. Pages 67–70

6. Call up SECOND member.
   - Continue as before, except gradually be more exacting in a friendly way.
   - Stress STEP III more and more. INSIST that the learner do the job and EXPLAIN the key points.
   - Suggest that member use the following "lead-in" or one accomplishing the same purpose, when he asks the learner to do and explain:

     "Some of us find it easy to copy motions. This doesn't always mean we understand. Would you do the job again, and explain to me WHAT you are doing and WHY?"

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

(1 hr. 55 min. to here)

7. Call on the THIRD member for a demonstration. References

   - Become MORE AND MORE EXACTING in a FRIENDLY way.

   - Have members stress STEP III. There is only ONE ANSWER to how much stress an instructor should give STEP III; namely, "CONTINUE UNTIL YOU KNOW HE KNOWS."

V. SUMMING UP

(Allow 5 min.)

1. Have group tell you:

   - The FOUR GET-READY points.

   - The FOUR BASIC STEPS.

2. Suggest to the members who have not yet put on their practice instructing demonstrations that they review how they plan to GET READY in the light of the demonstrations they have witnessed.

   - The more carefully the instructor GETS READY the better the instructing job he will do.

3. Make some complimentary and ENCOURAGING STATEMENTS about the demonstrations that have been given in the session.

4. Point out the PERSONAL value in getting one's thinking about the job PLANNED and ORGANIZED.

(2 hours to here)

5. Adjourn the session promptly at scheduled time.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Sessions Outline

Session IV

BEFORE the Session starts:

Be there ahead of time. Have a supply of breakdown sheets. Be sure the chairs are arranged properly. NEVER let a "classroom" atmosphere develop.

Time Table	I. OPENING the Session.	References
(Allow 15 min.)	1. Express gratification at members' interest in WAR PRODUCTION as evidenced by their presence.	
	2. Have group TELL you: - The FOUR GET-READY points. - The FOUR STEPS of instruction.	
	3. Review again the TIME TABLE. - Have a member place a time table on board and explain. - Go over as many time tables as time will permit.	
15 min. to here		
(Allow 15 min. for each demonstration, 10 min. for comments.)	4. Continue PRACTICE INSTRUCTION (4). - Have members watch their "How-to-Instruct" cards as the demonstrations are put on. - Have them write down the important steps and key points of each demonstration on breakdown sheets.	
	5. Use STANDARD PROCEDURE for comments. Be more and more exacting in a friendly way.	Pages 58-66

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

NOTE: The following special problems may be brought out at any appropriate place in Sessions III, IV, or V.

References

6. Discuss three SPECIAL INSTRUCTION PROBLEMS encountered in many shops: Pages 67–70

   a. The LONG OPERATION.

      How to use the FOUR-STEP method on an operation that takes 3 hours or perhaps 3 days.

   b. The NOISY SHOP.

      How to use the FOUR-STEP method in a shop where it is too noisy to hear.

   c. Putting over "FEEL."

      How to instruct a man in that important thing—"feel." Demonstrate this point with a vise, nut and bolt, micrometer or some similar example.

1 hr. 55 min. to here

(Allow 5 min.)

II. SUMMING UP.

1. Resell the ADVANTAGES of becoming a good instructor. Pages 70–71

2. Stress importance of production and accuracy. Point out that the lives of the soldiers, sailors, aviators—people just like ourselves—depend upon perfectly operating parts of airplanes, tanks, ships, guns.

3. Stress that what the Instructor says to or does with a workman doesn't count—unless it sticks. What sticks in the Worker's mind is the NET RESULT that counts.

2 hrs. to here

4. IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

(over)

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Sessions Outline

Session V

Time Table		References
(Allow 5 min.)	I. OPENING the Session. 1. Make appropriate remarks at the beginning of this, the last session.	
(Allow 1 hr. 25 min.) ↓ 1 hr. 30 min. to here	II. PRACTICE DEMONSTRATIONS (3) 1. Following same procedure as at previous demonstration periods, complete the practice demonstrations of remaining members. Be more and more exacting, in a friendly way. LET NO SIGNIFICANT ERROR GO UNMENTIONED IN THESE LAST DEMONSTRATIONS.	Pages 58–66
(Allow 25 min.)	III. SUMMING UP. 1. Express APPRECIATION for COOPERATION and interest of group. 2. Call for remaining QUESTIONS. 3. Restate URGENT need for WAR PRODUCTION and need for helping millions of employees improve their performance on their jobs. 4. Show savings in break-in time, scrap, manpower, tool breakage, etc. (Use latest figures available locally.) 5. Recall the problems discussed by the group in the first session that were grouped into problems of: Production. Safety. Quality. Personnel.	

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

a. Emphasize again that the only sure way that an instructor can gradually work himself out of them is through training. Otherwise he is nothing but a "trouble shooter," dealing with one emergency after another, and never getting them solved—never working TOWARD their permanent solution.

b. Point out that many supervisors think they don't "have the time" to train.

c. Emphasize that by "taking the time to train," the instructor won't have so many time-consuming "emergencies"; that training is the one "handle," as it were, that a supervisor can "take hold of" and do something about.

6. Urge consistent use of the FOUR-STEP method.

7. Clear up the following questions that may be in several members' minds, "JUST WHAT AM I TO DO ABOUT THIS?" Pages 72–75

a. If the group is composed of lead men, gang bosses, experienced operators who personally instruct workers:

- Use this FOUR-STEP method constantly on the job—every time you "pass on the know-how" to a worker—every time he asks you a question or you check his work.

b. If they are foremen, inspectors, or higher-ranking supervisors who don't instruct workers personally:

- Use this method with your own assistants every time you put over a new idea, issue an order, or check a man's work.

- Arrange for all your subordinate supervisors and all who instruct workers in any way to take part in this 10-hour program, just as quickly as possible.

(over)

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Time Table

References

- Encourage your men to use this FOUR-STEP method. All that can be done in 10 hours is to put "tools" in your men's hands. You superintendents, foremen, and others must see that the tools are used.

For example you can:

- Have each group leader break down three operations a week for a time, and review the breakdowns with his foreman.

- At regular meetings, i. e., staff meetings, production meetings, etc., discuss the use being made of the FOUR STEPS.

- As you see subforemen, group leaders, and others in the shop, ask them whether they are using the plan.

1 hr. 55 min. to here

8. Explain that if there are ANY QUESTIONS or PROBLEMS, members are to get in touch with their supervisors.

(Allow 5 min.)

9. Get expression of group as to whether the members are prepared to apply these instruction principles conscientiously as their part in the NATIONAL WAR PRODUCTION program. To the extent that is appropriate, develop this into a little ceremony and PLEDGE on the part of each member that he will put the FOUR STEPS to work.

10. Wish group success and adjourn meeting.

2 hrs. to here

11. Parting shot: IF THE WORKER HASN'T LEARNED, THE INSTRUCTOR HASN'T TAUGHT.

WORK FROM THIS OUTLINE—DON'T TRUST TO MEMORY

Reference Material

The use of this material in the Training Sessions is indicated by the marginal reference numbers.

The following material is prepared as a supplement to the information provided in the Sessions Outline. These illustrations and additional points are desirable to use to AMPLIFY and CLARIFY items in the Sessions Outline. Illustrations and stories of your own dealing with PRACTICAL APPLICATION of items presented are very desirable. NO item in the outline is to be omitted or changed, however. Amplification and illustration of such items ONLY are in order.

Putting the Group at Ease and Establishing Informal Relationship with Members

Establishing an informal atmosphere and putting a group of people at ease cannot be accomplished by simply making a statement that they be at ease.

The members of your group are apt to be uneasy mentally and somewhat concerned as to why they are present. In many cases they probably were assigned to attend the meeting. They did not volunteer.

The personal impression that you make during the first 5 or 10 minutes is a big factor because if it is favorable it makes the work easier to carry on. If it is unfavorable, you must make considerable effort later to overcome this impression.

Let the manner of your delivery, your tone of voice show clearly that you are in earnest, that you feel strongly about the importance of the work, and that you fully respect the present knowledge and experience of the group. Here are some ideas from which you can work out the opening talk.

1. Establish your own industrial background by briefly relating your own industrial connection—if this is done while writing or printing your own name on the blackboard, you can set a pattern which each will naturally follow.

   - Have each man then relate his own connection briefly, not so much to get the information, but to set him at ease since it is something that he can do correctly and easily.

   - Have each man print his name and department (or company, if several companies are represented) on a card which is placed before him at his position.

   - You can claim that your own inability to remember names makes this effort on their part a favor to you in conducting your work.

2. If plant regulations permit smoking, trainers may light a pipe or a cigarette, thus setting an example of informality. Remember, however, that a pipe or a cigarette can become a nuisance to you while trying to talk or write.

   - When you have set the example of informality, get rid of the pipe or cigarette until later in the sessions when it will not interfere with conducting the meeting.

3. Be sure to point out that with the present background of experience which the group possesses, anyone would be bluffing who presumed to be able to improve their practices or their working skill.

   - Your only purpose is to help them to make better use of what they now know. They were selected because of their own skill and experience; they probably know more about that than any other living person.

   - They certainly do know more about it than you do.

4. Avoid classroom atmosphere as members are mature and resent any suggestion of "school teacher and school boy" relationships. Avoid using such terms as "class," "student," "classroom," "teacher." Say rather "group," "worker or learner," "get-together," "meeting," "instructor," etc. TRAINING is a normal part of day-to-day supervision — not something "special" or "apart." Think and speak of a training meeting as any other meeting concerning PRODUCTION.

5. Tell them you are going to discuss shop problems—just as a group of shop men—nothing highbrow.

   - There will be a chance actually to try out the ideas and practices discussed, and a certificate will be issued to those who by full attendance and reasonably good performance have qualified as instructors.

6. Explain that not so long ago you were "on their side of the table," when you took this training yourself. You know it is not too difficult to "get on to" and have tried it out in practice; it does work. Your being in a position "to pass it along" is gratifying. It is a real privilege to be tied up with this activity.

This Is a War of Production

The United States is supplying an army of over 11,000,000 and providing war goods also to our allies. It is not just a question of supplies for a new soldier—there must be a constant stream of war goods, of food, of clothing to replace what is lost or used up.

German equipment is well-made. It takes much good equipment for our troops who encounter German troops.

More and more equipment is needed in the Pacific.

As production needs mount, production problems become more difficult.

Experienced men are being drained out of war plants. The production experience and the ability of new people who come into plants now are constantly lower. And this will get worse.

Training must therefore be better—it must fit these people into production quickly so that the stream of quality war goods does not slow down.

Why Training Is Vital to Every Supervisor and Experienced Worker

Distribute a problem sheet to each member, and give a short explanation of its purpose, i. e.:

- A quick means to visualize just where training can help remedy common shop problems.

- Not trying to explore <u>every possible</u> situation where training can be helpful. We will look at a small sample of current problems. Maybe no one has <u>all</u> of those shown on the list. Maybe he has others not listed here. For now, let us think a little about those listed.

- Some of the items are beyond the control of the individual members; others are directly in their control. Who is responsible is not the question. Where training can help is the ONLY purpose now.

Read each problem under "Production" and ask members to put a check mark against any they have.

- Then ask the group how many items have been checked. Get actual replies from, perhaps, 4 or 5 members.

- Explain carefully: "This is not an attempt to 'dig into' or 'expose' your problems. It is SOLELY to determine the usefulness of TRAINING as a part of EVERY supervisor's job."

Then read each problem under Safety and follow the same procedure as above.

Do the same for Quality and Personnel.

The whole purpose of the sheet is to stimulate more specific thinking about training on the actual jobs on which members are engaged.

Taking a little time now will give the members a better slant on the subsequent work of the instructing procedures.

Don't argue or carry on any lengthy discussions. The sole purpose of the use of the sheet is to focus attention on specific applications where training can profitably be used.

Keep in mind that these men live close to their own jobs. In the pressure of other things all of us lose sight of the fact that lack of proper training causes all the problems listed on the problem sheets and in fact many more.

Also remind the members that these drags on production are often found with workers who have been on the job long enough to be classed as experienced. They are not limited to new or green men.

After checking and discussing the items listed on the sheet, ask members how many of these particular items can be helped by better trained workers.

Close the discussion with the definite conclusion:

- That about 80 percent of these particular shop problems could be solved or at least helped if the supervisor had a better trained work force.

- That if a supervisor really wants to train his people, no one can stop him. If he doesn't want to train them, no one can make him give more than "lip service" to training.

HERE ARE SOME PROBLEMS THAT JOB INSTRUCTION TRAINING *HAS HELPED* SOLVE IN WAR PRODUCTION PLANTS

Do you have any similar problems on your job?

Production Problems

Deliveries delayed because of errors and mistakes by men making the parts.
Men don't know their jobs.
Mix-ups in trucking service.
Parts returned by other departments because they were not made right.
Operators have special problems because of engineering changes.
Poor planning.
Men have difficulty in getting up to production on new type equipment.
Aisles too congested.
Excessive wear and tear on equipment.

Safety Problems

Safety equipment not properly used.
Material not piled properly.
Poor shop housekeeping.
Don't know safety rules.
Men don't know hazards of their jobs.
Men get careless.
Minor injuries not reported.

Quality Problems

Meeting inspection standards.
Too much scrap or re-work.
Jigs and gauges not properly used.
Not following specifications.
Too much left to operator's judgment.

Personnel Problems

Men leave to other plants—couldn't "get the hang" of the job.
New men and women lack experience in mechanical things.
Lack interest in the work.
Men want transfers—think they can "make out" better on other jobs.
Claim to have good experience but don't "come through."
Too much time to get up to production.
Instructed wrong way.
Can't get experienced men any more.
Get discouraged learning the job.

Most supervisors say that somewhere around 80 percent of these problems could be solved—or at least helped—if they had a better trained work force.

How about yours?

Pointers on Making Faulty Demonstrations

The purpose of presenting a faulty instructing demonstration is to convince the members of the group that merely "telling" or "showing" a learner is seldom good instruction.

These suggestions for presenting a faulty demonstration of "How to tie a fire underwriters' knot" are to supplement the material in the Sessions Outline. First, you must know how to tie the knot yourself and be able to describe it clearly. See diagram.

Before starting the faulty demonstrations, be sure to use the "lead-in" idea as covered in the Sessions Outline, and emphasize that this knot demonstration is only illustrative—a simple job— and should be applied to each member's own job.

You must carry out these demonstrations with a realization that from your first opening statement every move you make has a distinct and important purpose. The whole aim is to get the correct instructing procedure understood by the members.

You should be aware of the progressive build-up in this first session, which is to get in the mind of each member:

First -a realization of the acute need for training on the job;

Second-the importance of good instruction to a supervisor;

Third -some of the weaknesses we fall into in breaking-in workers (tell-show alone);

Fourth-the instructing process which is sure-fire and easier to use than the others.

Suggestions on "telling" how to tie the knot.

Speak slowly and distinctly so no criticism of your telling can be made.

1. Take a piece of ordinary twisted lamp cord.
2. Hold it vertically with your left hand, between the thumb and first finger, 6 inches from the end.
3. Untwist the loose ends, forming a V.
4. Straighten the loose ends between the thumb and first finger of the right hand.
5. Hold the wire at the beginning of the V.
6. Take the right-hand loose end with the right hand, making a clockwise loop, bringing the loose end across in front of the main strand.

7. See that this loop is about 1 inch in diameter and the stub protrudes to the left of the main strand about 2 inches. Hold the wire at the junction of the loop and the main strand.

8. Take the other loose end with your right hand.

9. Make a counter-clockwise loop. To make this loop, pull the loose end toward you, pass it underneath the stub, behind the main strand.

10. Pass the loose end through the right-hand loop, from back to front.

11. Hold the ends evenly between the thumb and first finger of the right hand.

12. Pull the knot taut.

13. Shape the knot between the thumb and first finger of the left hand as it is pulled taut.

Suggestions on "showing" how to tie the knot.

The Sessions Outline gives enough detail on "showing" to enable you to carry it on without further suggestions—if you can tie the knot.

Examples of Telling and Showing:

Here are some common examples proving that unfortunate results come from telling when a new man doesn't "get" the ideas:

1. Erecting a derrick on a construction job—The boss told a helper to slack off on a guy wire. What really was in his mind was to equalize the strain on all guys. The man loosened the shackle bolts completely and the whole strain of the mast was on the ONE guy. The derrick fell. Fortunately, no person was hurt, but hours of labor had to be used by an entire gang to get back to where they were before they were "told."

2. Remember the one about the boss in a repair shop "telling" the new worker to "go get the old man." Of course, an "old man" used by maintenance men is a tool—a portable rigging with an adjustable clamping device—which acts as a hand power drill press. Instead of a special rigging for drilling a hole in metal, he brought the superintendent! Considerable explaining was needed before the superintendent found out what had happened!

From your own experience, you can pick out illustrations of a similar kind.

-Do not overdo it, however. Your purpose is only to get a realization in the members' minds that mere "telling" is not a reliable way to instruct.

Similarly, "showing" can be brought out by concrete examples:

-Showing a man how to put plaster on a wall—it looks easy, but he puts the plaster everywhere except where it should be. It won't stick for him.

-Showing a man how to tie a package and break the twine—it looks easy, but he can be most awkward in handling the package and even cut his hand trying to break the twine.

-Showing a helper how to solder on sheet metal—it looks easy, but when the helper tries, everything goes wrong—sheets warp—solder won't stick, etc.

Selection of proper methods for an instruction job is as important as selection of proper tools for a mechanical job.

Completing a definite series of steps and operations in an instruction job is as important as following the steps outlined in an operation sheet for a shop job.

Pointers on Making a Correct Demonstration of Good Instruction in "How to Tie a Fire Underwriters' Knot"

So much depends on your putting on an ideal demonstration that you should be letter perfect in carrying it out.

Remember that every point you will stress later in both the breakdown and the use of the four basic steps must be covered by this one demonstration.

When well done, it is a background to which you can refer during the remainder of the sessions.

You will have to work out exactly how to emphasize each step.

BE SURE to "put over" your Steps and Key Points exactly as in the brief breakdown you will use in Session II. Naturally you will not cover every detail as you did in your "telling" demonstration.

When instructing your "worker" you may use the terms "clockwise" and "counter clockwise" or "right-hand" and "left-hand" loop, as you wish. The terms "clockwise" and "counter clockwise" are recommended; however, just because their use serves excellently to show that "peculiar," "local," or "tricky" terms and part names must be handled with extreme care. There are thousands of such terms throughout the shops of the country. Later in Sessions III, IV, and V you can explain to the group that you used these terms deliberately to illustrate this point. In the breakdown in Session II, r. h. and l. h. are used because these abbreviations are simpler to write.

Step 1. Demonstrating "Preparing" the worker:

a. Greet member naturally. Tell him he is going to assemble lighting fixtures for Army camps. The first part of that job he has to learn is the fire underwriters' knot.

b. Ask him if he knows what the fire underwriters' knot is used for. If he doesn't, show him a completed knot.

c. Illustrate how it functions to relieve strain on the wire connections in electrical fixtures. Stress that if HE does not tie the knot properly an Army barracks may burn.

d. If convenient have the man on the instructor's right, so he can now be moved to the left — just to emphasize "correct position" for this job.

Step 2. Demonstrating "Presenting" the new instruction to the Worker:

a. Untwist and straighten the two wires—hold vertically in left hand according to instructions. Stress the key point—about 6 inches for this job.

b. Make a loop with wire "B" (see Fig. 2). Stress that the loose end must lie across and in front of the main strand.

c. Make loop with wire "A" (see Fig. 3), and repeat slowly. Stress the three key points—pull toward you; pass wire under stub; and behind the main strand.

d. Put end of wire through first loop.

e. Demonstrate how to tighten the knot. Stress the two key points—ends even; knot snug (See Fig. 4.):

(1) You may have to repeat the demonstration, showing how fingers of left hand are used.

(2) Call attention to final appearance of knot.

(3) Show how to adjust knot to proper position on wire.

Step 3. Performance tryout:

a. Provide worker with a new length of wire.

b. Ask him to tie the knot—do not ask him if he would like to try it.

c. Stop him immediately if an incorrect procedure is discovered and correct it.

- Make sure he follows exactly what you presented. If he becomes confused, then show and explain correct procedure until the faulty movements are overcome.

- Question him to assure yourself that he does understand what you presented—if he missed it, go back far enough to make it clear.

d. Ask worker to tie the knot again, and explain to you WHAT he is doing and WHY. If he does not explain the key points, ask questions beginning with "why," "what," "where," "when," that will require a correct explanation.

e. Continue having him tell you WHAT he is doing and WHY until you know he knows the job. It may be necessary for him to tie the knot 5 or 6 times.

Step 4. Follow-up:

a. Ask him to go ahead with the job on his own.

b. Explain that if he gets stuck, he should see you—no one else. You will be available to help him.

c. Set up the situation as requiring the tying of the knot in 500 cords—a shop project.

d. Tell him you will return in a few minutes to see how he is getting along.

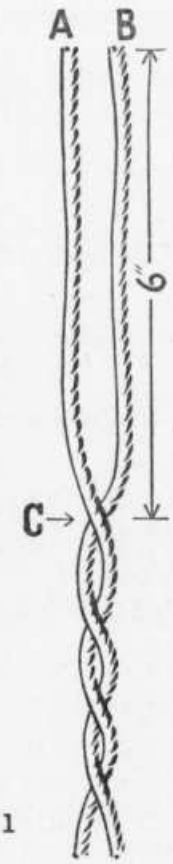


Fig. 1

Here is a pictorial description of the knot for your own use in becoming completely familiar with it. It is not for presentation in the sessions themselves.

How to tie a fire underwriters' knot, using standard 2-strand twisted lamp cord.

Steps in the Operation	"Key Points"
1. Untwist and straighten ends.	About 6 inches for this job. (Slight differences in length will not make or break the job.)
- Hold in left hand at point "C" (Fig. 1).	

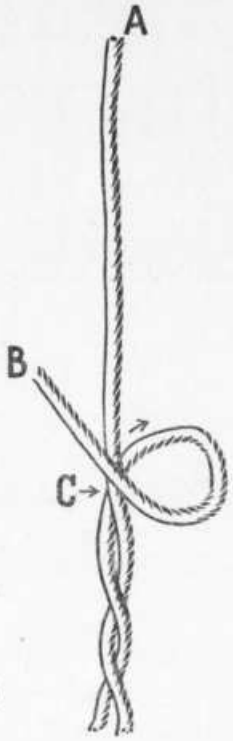


Fig. 2

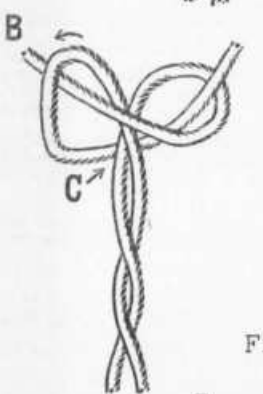


Fig. 3



Fig. 4

Steps in the Operation	"Key Points"
2. Make R. H. loop in right hand wire (Wire "B").	Cross in front of main strand (Fig. 2).
– Hold wire at junction of loop and main strand.	
3. Make L. H. loop of the remaining wire (Wire "A").	Pull toward you.
	Pass under stub protruding to left.
	Behind main strand.
4. Put end of wire "A" through first loop. (Fig. 3)	
5. Pull taut. – Take wire ends ("A" and "B") in finger and thumb of right hand and hold stranded wire at "C."	Ends even (Fig. 4).
– Use thumb and first finger of left hand to make loops lie neatly and snugly across the main strand, and to adjust the knot to approximately 6 inches from the ends of the wires.	Knot snug.

JOB INSTRUCTION

INDUSTRIAL
SAMPLE JOB BREAKDOWNS

Here are some examples of Job Breakdowns and a Time Table which have developed and used by War Production plants:

- Keep this sheet for reference.
- Start breaking down your own operations.
- Use these actual samples as a guide for your own breakdowns.

Example 1

TRAINING TIMETABLE

(This is how one supervisor made up a TIMETABLE for training his men. Any jobs or units of a job can be worked out the same way.)

	Drill	Bore	Ream	Face	Taper Turn	Burr and Burnish	Etc.	Etc.	Etc.
White	✓	✓	✓	✓	✓	✓			
Nolan	✓	✓	✓	11-10	–	–			
Smith	11-1	11-20	–	✓	✓	12-1			
Jones	–	–	✓	11-15	12-1	12-8			
Etc.									

✓ means the worker can already do the job.

– means he doesn't need to know the job.

11-1, 11-15, etc., indicates the dates the supervisor has set for himself when he plans to have his men TRAINED to do the jobs required.

Example 2

JOB BREAK-DOWN SHEET FOR TRAINING MAN ON NEW JOB

PART: Shaft OPERATION: In-feed grind on centerless grinder

IMPORTANT STEPS IN THE OPERATION Step: A logical segment of the operation when something happens to ADVANCE the work	KEY POINTS Key point: Anything in a step that might— Make or break the job. Injure the worker. Make the work easier to do, i.e., "knack," "trick," special timing, bit of special information.
1. Place piece on plate against regulating wheel	"Knack"–don't catch on wheel
2. Lower lever–feed	Hold at end of stroke (count 1-2-3-4.) Slow feed–where might taper Watch–no oval grinding
3. Raise lever–release	
4. Gauge pieces periodically	More often as approach tolerance
5. Readjust regulating wheel as required	Watch–no back lash
6. Repeat above until finished	
7. Check	

A leadman in a machine shop did this break-down in 5 minutes.

This leadman uses this break-down "as is" for men who have had previous experience on centerless grinders.

For green men he breaks up the operation into several "instruction units." He strikes off a detailed break-down for each unit.

Example 3

JOB BREAK-DOWN SHEET FOR TRAINING MAN ON NEW JOB

Governor Brake Disc OPERATION: Bench lathe job-drill, bore, ream and face

TANT STEPS IN THE OPERATION A logical segment of the ration when something hap- to ADVANCE the work	KEY POINTS Key point: Anything in a step that might— Make or break the job. Injure the worker. Make the work easier to do, i. e., "knack," "trick," special timing, bit of special information.
Chuck	Chuck squarely-no chips, no nicks
dicate	Low speed
nter drill	Angle-give drill double bearing
Drill	Lips even. Feed even. High for chip clearance. Clean drill
Reverse piece	
Bore	Feed even and slow
Plug gauge	Enough stock for reaming
Ream	Feed evenly. If bell shaped, check tool
Set cross slide	No back lash
Turn	Feed evenly. Keep "drag" for good finish
Face	Keep "drag" for finish
Gauge hole-plug gauge	Never remove piece-"feel"
Check	
Remove and place in tray	Don't drop

A job setter in a machine shop did this break-down in 9 minutes.
He uses this break-down "as is" for workers who have had other h lathe experience.
For green men he uses one or two of the above steps as a separate ructing unit, and makes a separate detail break-down for each of e smaller units.
Example 3a shows his detailed break-down for "chucking."

Example 3a

JOB BREAK-DOWN SHEET FOR TRAINING MAN ON NEW JOB

PART: Governor Brake Disc OPERATION: Chucking for Lathe Job

IMPORTANT STEPS IN THE OPERATION Step: A logical segment of the operation when something happens to ADVANCE the work	KEY POINTS Key point: Anything in a step that might— Make or break the job. Injure the worker. Make the work easier to do, i. e., "knack," "trick," special timing, bit of special information.
1. Open jaws	Wrench full into sockets
2. Clean out chips	Use brush-not hands Get all out
3. Set piece in jaws	
4. Adjust jaws to piece	Even pressure all round-not too tight
5. Try for balance	Must center
6. Final tighten-jaws	Must hold against pull of cutting tools

Example 4

JOB BREAK-DOWN SHEET FOR TRAINING MAN ON NEW JOB

T: Slide Base 235310 OPERATION: Mill Dovetail

PORTANT STEPS IN THE OPERATION p: A logical segment of the peration when something hap- ens to ADVANCE the work	KEY POINTS Key point: Anything in a step that might— Make or break the job. Injure the worker. Make the work easier to do, i. e., "knack," "trick," special timing, bit of special information.
Select cutter	Small-minimize chatter
Select holder parallels	Narrow-yet to give good hold
Place piece in vise	Check with tissue
Rough cut	Start by hand-1"-Check for finish stock and location
Trial finish cut	Check-make correction
Finish cut	Finish without stopping
Remove from vise	
File burrs	
Check	

An experienced workman in a machine shop made this break-down in minutes.
This instructor uses this break-down "as is" for workers who have other milling machine experience.
For green men each of these steps might constitute an "instructing nit" by itself and require a separate detail break-down.
Example 4a shows the detailed break-down for Step 4, above, Rough

Example 4a

JOB BREAK-DOWN SHEET FOR TRAINING MAN ON NEW JOB

PART: Slide Base 235310 OPERATION: Rough cut for Milling Dovetail

IMPORTANT STEPS IN THE OPERATION Step: A logical segment of the operation when something happens to ADVANCE the work	KEY POINTS Key point: Anything in a step that might— Make or break the job. Injure the worker. Make the work easier to do, i. e., "knack," "trick," special timing, bit of special information.
1. Run up table by hand	Slow when nearing cutters
2. Feed 1 inch by hand	
3. Stop machine and run back table	Never run table back while cutters are in use
4. Check cut	Location and finish
5. Set feed	
6. Start machine	
7. Finish cut	
8. Check	

How to Comment Constructively on Practice Instruction Demonstrations

1. BEFORE the demonstration starts:

   a. Distribute breakdown sheets.

   b. Ask members to jot down what they can "catch" of the STEPS and KEY POINTS of the operation.

      – Review as is necessary what a "key point" is; i. e., something that is the "key" to the right doing of a step. Remember, however, that every little point or precaution is not a key point.

   c. Ask them to follow their "How to Instruct" cards and note any errors and omissions.

2. Call on a member to put on his demonstration.

   a. Call for volunteer to serve as "worker."

      Note: See that each member serves as the "worker" in one demonstration. See that the "worker" does NOT know the job wherever possible.

   b. Caution "instructor" to have everything ready and in order.

   c. Ask him to state the JOB SETTING for his demonstration.

   d. Ask him for his job breakdown.

      – Explain that you just want to see if he had caught the "knack" of breaking down the job—that you will return the sheet to him.

   e. Have a supply of breakdown sheets for your own use.

      – Jot down as the instruction proceeds both important STEPS and KEY POINTS as you can catch them from the demonstration. DON'T COPY the member's breakdown. Make your own. This will provide an interesting comparison and basis for your comments.

      Make notes on the same breakdown sheets as to errors, omissions, and mistakes you have observed in the GET READY points and keep STEPS II and III notes in parallel columns, so you can compare points CHECKED against points PRESENTED. (See page 66.)

3. AFTER the demonstration, comment as follows (allow 10 minutes).

Thank the "worker" for his cooperation and let him return to his place. Ask the "instructor" to leave his demonstration job set-up and remain at the front.

a. STEP 1—PREPARE THE WORKER

To Group – Let's review this demonstration with our 4-step method.
Let's look at Step 1 on our cards.

Select for comment from the following as appropriate:

To Group – What is the first item?
(Put him at ease.)

– Was this natural, or overdone, or poorly done?
(Group's answer.)

To a Member – What is the second item?
(State the job, etc.)

– What was the job the worker had to learn?
(Member's answer.)

– How much did the worker know about it?
(Member's answer.)

To Group – The third item on the card is—"Get him interested in learning job."

To a Member – How did the instructor get the worker interested in this case?
(Member's answer.)

To Worker – What is the last item under Step 1?
(Place in correct position.)

– Were you in the best position to see the job?
(Worker's answer.)

b. STEP 2—PRESENT THE OPERATION

To Group – Let's see how the job was presented.

Select for comment from the following as appropriate:

To Group – What is the first item under Step 2?
(Tell, show, and illustrate one IMPORTANT STEP at a time.)

– How many important steps did you catch?
(Answers from several members. If a difference exists, it serves your purpose excellently. In any case, say: Suppose we hold the discussion on how each important step was presented until later.)

To Group – What is the second item?
(Stress each KEY POINT.)

– How many key points did you catch?
(Answers from several members. If a difference exists, it serves your purpose excellently. In any event, say: Let's discuss the key points later when we look at the Important Steps.)

To Worker – What is the last item under Step 2?
(Instruct clearly, completely and patiently, etc.)

– Were the instructions clear, understandable, complete or is there more information you would like to have?
(Worker's answer.)

c. STEP 3 – TRY OUT PERFORMANCE

To Group – The first item on the card under Step 3 "Try out Performance" is—"Have him do the job—correct errors."

Select for comment from the following as appropriate:

To a Member – Were any errors corrected the first time the worker performed the job?
(Member's answer.)

If appropriate, ask:
– What were they?
(Member's answer.)

To Group – What is the next item under Step 3?
(Have him explain each KEY POINT, etc.)

– Was each KEY POINT explained by the worker or did he miss some?
(Answers from several members. If a difference exists, it serves your purpose excellently. In any event say: Let's save the discussion on checking these Key Points until later.)

To Worker – What's the next item under "Try out Performance"? (Make sure he understands.)

– Do you understand all the key points of this job or are you hazy about some? (Worker's answer.)

To Group – How many times did the instructor have the worker do the job and explain the key points? (Group's answer.)

To Instructor – What is the last item in this step? (Continue until YOU know HE knows.)

– Why were you satisfied the worker knew the job in this case? (Worker did the job and explained it again and again until he knew it perfectly.)

d. STEP 4—FOLLOW UP

To Group – Let's look at Step 4 of our method. What is it? (Follow up.)

Select for comment from the following as appropriate:

To a Member – What's the first item? (Put him on his own. Designate to whom he goes for help.)

– To whom does the worker go in this case? (Member's answer.)

To Instructor – The next items on the card are: Check frequently. Encourage questions.

– How soon will you have to check? (Instructor's answer.)

– The last item in Step 4 is "Taper off extra coaching and close follow-up."

– How would you taper off your follow-up during the next several hours—several days? (Instructor's answer.)

e. REVIEW THE USE OF JOB BREAKDOWN IN STEPS 2 and 3

To Group – Let's review how the Job Breakdown was used in this case.

– Our card tells us under Step 2 "Present the operation to STRESS each KEY POINT."

– And under Step 3 "Try out Performance to have him EXPLAIN each KEY POINT."

– In order to find out if each key point was properly handled, let's slow down the job, and look at each important step one at a time.

To a Member – As I caught the instruction the first Important Step was—

– What key points did the instructor stress in that important step?
(Member's answer.)

– What key points did the worker explain when he performed that important step?
(Member's answer.)

Note to Trainer: Continue the above questioning on each important step using different members. "Smoke out" key points you feel should have been brought out using the "What would happen if—, Why did you—, etc." technique with the instructor and worker. Where key points were brought out in Step 3, for the first time, or not checked in Step 3, or missed in both Steps 2 and 3, always make a convincing statement about the importance of properly handling key points.

To Group – The last item on the card reminds us "If worker hasn't learned, the instructor hasn't taught."

– Let's turn our cards over to the other side.

f. THE GET READY POINTS

Select as appropriate from the following:

To Instructor – What is the first Get Ready Point?
(Have a Time Table.)

– How does this job fit into your training plans?
(Instructor's answer.)

- What are you going to give him next?
  (Instructor's answer.)

- Why are you going to give him that particular operation?
  (Instructor's answer.)

- When are you going to train him by it?
  (Instructor's answer.)

To Group
- The next Get Ready point on the card is "Break down the job."
- We have just reviewed the breakdown for this job.

To Instructor
- Were there any points brought out in our discussion of the breakdown that would make the job easier for you to put over if you had to instruct the worker again?
  (Instructor's answer.)

- What, for instance?
  (Instructor's answer.)

To Worker
- Did our discussion help clear up any points for you?
  (Worker's answer.)

- Will you illustrate?
  (Worker's answer.)

To a Member
- What is the third Get Ready point?
  (Have everything ready.)

- Were there any fumbles—did the instructor forget anything?
  (Member's answer.)

To a Member
- What's the last Get Ready point?
  (Have the work place properly arranged.)

- Did the instructor have to change the work place during the instruction or apologize?
  (Member's answer.)

To Group
- What effect will this kind of instruction have on production, quality, safety, and on personnel problems?
  (Answers and reasons from several members.)

To Instructor
- Will this 4-step method help you in training your work force?

- Thank instructor for bringing in the job and remind him that the comments and suggestions were not intended to be personal. They were directed at the job for the purpose of bringing out the "fine points" and "knacks" in job instruction.

Suggestions Regarding The Standard Procedure

The first demonstrations in Session III will have many flaws. The trainer will have to pick out a few of the more basic ones and drive home his constructive suggestions concerning them. If he tries to correct every little detail in these early demonstrations, the time table for the session will be affected adversely but, what's more important, neither the instructor nor the group will be able to retain all the ideas discussed. Don't try to make the first demonstrations letter perfect. Select a few of the basic faults in each of the early demonstrations and really correct them. It may even mean that the trainer will have to leave out discussing some of the items in the standard procedure in order to drive home the points selected. The trainer should be more and more exacting in a friendly way as the demonstrations progress, correcting the minor details as the members show that they have mastered the basic ideas. It is not until the demonstrations in Session V that he does not let any fault go by unnoticed. If the trainer has done a good job of driving home his suggestions a few at a time in the early demonstrations, there will be few points needing correction in Session V.

The following are some devices that trainers have found helpful in making the discussions interesting as well as being effective in driving home points.

1. Ask the worker about points that were not made clear by the instructor. This provides a nice lead in to "If the worker hasn't learned, the instructor hasn't taught."

2. If the group has difficulty noting the Important Steps and Key Points as a demonstration is put on, remind them when a job is presented one Important Step at a time with the key points <u>really stressed</u> it permits everyone to catch these details.

3. Frequently when discussing the handling of a key point that the worker forgot, the instructor will say that he "told" the worker about it. This provides a good opportunity for the trainer to drive home the need for <u>stressing</u> key points and not merely <u>mentioning</u> them.

4. Where the instructor has not been too exacting in getting back an explanation of the key points in a job, the trainer might refer to the card and ask the instructor how he can be sure that the worker

understands. This will give the trainer a chance to sell the idea that workers should be able not only to do the job but understand "what they are doing and why."

As you gain experience in using the standard procedure you may wish to vary the actual words used from those given. This makes for interesting sessions and less stereotyped procedure. You may also find it desirable to vary the actual pattern used from demonstration to demonstration. For instance, where the standard procedure calls for asking a member what the next item on the card is, you might read the item and then ask the member the appropriate question about it. In any event, do not change the intent or strategy of the standard procedure. To be on the safe side, if there is any doubt in your mind about a variation in the standard procedure, follow the exact pattern given.

In using the standard procedure, where the member's or group's answer does not agree with what you have recorded on your "trainer's notes," guide a brief discussion to the correct conclusion. Always be constructive in your comments. We are not testing the instructor to see if he did or did not follow the 4-Step Method. We are trying to help him and the rest of the group to use the Method properly.

Johnson 11:21 11:37

JOB BREAKDOWN SHEET FOR TRAINING MAN ON NEW JOB

PART (?) OPERATION Connect wires

IMPORTANT STEPS IN THE OPERATION Steps: A logical segment of the operation when something happens to ADVANCE the work	KEY POINTS Key point: Anything in a step that might Make or break the job Injure the worker Make the work easier to do, i. e., "knack," "trick," special timing, bit of special information
Bench not orderly. Wrong size screwdriver.	
I. Ease overdone known OK.	Interest tie-up Position poor angle.
II	III
1. Cap on wire (how much ?) (cut wire ?)	always on first shim $\frac{1}{2}$" don't cut wires (not clear)
2. Thin wires (handle knife ?)	lay flat on bench
3. Twist (which way ?)	?
4. Tie knot (where ?) (loop ?) coded wire	? (held differently ?)
5. Connect wires, tight ??? no frayed ends	no frayed ends OK. just tight ???
6. Put on shell all around. down	down all around OK.
IV.	
See me. OK. (Who else ??)	got to see the supt. etc etc.
What's this to the man ?	Take your time ??
Finally gave name - key socket.	

Three Special Instruction Problems

1. THE LONG OPERATION

- How to use the 4-step method on a working operation that takes perhaps 3 hours or 3 days.

- This is where correct instruction is MOST important. This is a situation where the learner and the instructor become most "confused" and "lost."

- The answer is to "break up" the long operation into small "doses," then put over one dose at a time.

a. Examples in the meeting room.

- Frequently jobs selected are: How to read the Micrometer; or Slide rule; or Vernier. When selected they should be so handled by the Trainer to illustrate the need for small unit breakdowns. These jobs should be put over by small units.

- Example—Micrometer

one unit—with Steps I, II, and III; parts and care of the instrument.

one unit—with Steps II and III; the scales and their relation to each other.

one unit—with Steps II and III; making simple measurements.

one unit—with Steps II, III, and IV; difficult measurements, i. e., those requiring reading in fractions of thousandths.

b. Examples on the job.

(1) Installing bulkhead in ship.

This job requires about 2 hours, and must be completed without interruption because of the gantry cranes that are tied up. There is no opportunity to stop and instruct a man in each unit separately. Yet there are about six highly important and reasonably technical units in the job that must be mastered with great accuracy.

- The answer is for the gang boss not to try to explain the whole installation.

For example:

- One unit—while one bulkhead is being installed instruct only on how to compensate for the declivity. Declivity happens to be the term used to describe the slope of the ship on the ways from which perpendiculars are established. He can put the worker through the 4 steps on this unit in a few minutes, without holding up the installation.

- One unit—while the next bulkhead is being installed put the worker through the 4 steps on mould line and loft line.

- Further units—as each additional bulkhead is installed put the man through the 4 steps on one segment of the installation. After six bulkheads are installed the worker will know the job thoroughly

  - much better than if he had been forced to try to master the whole job as best he could. He might have to struggle through the installation of some 30 bulkheads before he would finally catch all the points.

(2) Long assembly operation:

Sub and final airplane assembly jobs require several hours. Sufficient time is available on such jobs for the instructor (leadman, experienced worker, or whoever he may be) to put the learner through the 4 steps on EACH of the individual operations as the work proceeds. The whole point is to instruct men in SMALL UNITS of the work.

(3) Long machining operation:

The machining of large castings for tank, diesel engines, and ship use often takes several hours up to a few days. To instruct correctly, there should be perhaps 5 units of instruction—

- two units—in getting the work into the machine

  one unit —on centering the work

  one unit —on setting the cutters

  one unit —starting the machine

Time does not permit this procedure, so another plan must be used.

In this case the instructor has no choice but to take his man through all the steps necessary to get the job started, explaining each move, of course. Such a Step II is much too long for normal good instruction. There may be 40 or 50 important points in the operation. But in this case, there is no choice.

After the job is going, however, there are several hours of time available, which the instructor can use for Step III. Of course, he can't take the work out of the machine and have the worker DO the job, as should be done in the normal performance tryout, but he can check him thoroughly on each operation step and key point verbally. The instructor can have the man explain to him the operation and the key points again and again with the result that the worker has every minute detail of the operation clear in his mind.

When the next job is to be machined there won't be many points the worker doesn't know. All he will need is some practice in physical handling.

Naturally Step IV will be used in the normal way.

2. THE NOISY SHOP

- How to use the 4 steps in a shop where the noise is so great that one can't hear.

a. This is a common problem in boiler shops, chipping rooms, and departments where there is noisy machinery. There are two natural things to do:

(1) SHOW with exceeding care.

- This is the only method that can be used, so it must be done SO WELL that it carries the whole instructing job. Again small units must be presented.

(2) Go to a quiet place.

- Before and after showing, the worker can be taken to a less noisy place to discuss the operation and check his knowledge.

3. PUTTING OVER "FEEL"

- How to instruct a man in that important (often mysterious) thing called "feel."

Dispel at once the idea that "feel" is mysterious or difficult to put over to another. It is SIMPLE and can be done EASILY. However, it requires practice to become reliable in use.

Example: Micrometer reading.

- The instructor places the instrument on the shaft and tightens it until the "feel" is right. He then passes the "mike" to the worker and has him put the "mike" on the shaft and note the "feel" of the tightness.

  He then has the worker "back off" the "mike" and tighten it to the same "feel" set by the instructor. By passing the instrument back and forth in this manner a few times, the worker quickly learns the "feel."

  This same point may readily be demonstrated in the meeting room with a vise, nut and bolt, small ball bearing race, and a number of similar pieces of equipment. As a last resort, the "feel" of correct tightness of a fountain pen cap can be used.

Usefulness of the Four "Tools" of Instruction

Sometimes in one of the sessions there may be a little time available. If so, here are some good points to add.

1. TELLING

   Telling alone is not very useful as an instructional tool when the objective of the instruction is to develop new manual skills. It may be used to advantage when the objective is to impart information, if the information can be interpreted easily by the worker in terms of his past knowledge and experience. When the "telling" tool is used in instruction, it is particularly important that the instructor follow the "telling" by checking the learner's understanding of what was told.

   "Telling" has some value when it is used sparingly in combination with other instructional tools such as "showing" and "asking" or when a limited amount of new information must be passed on to the worker.

2. SHOWING

   "Showing" alone is better than "telling" alone as an instructional tool when new skills are to be developed, but it is of greatest value when it is used in combination with the "telling" or "asking" tools.

   a. "Showing" is particularly useful in the presentation step of a job when the worker is being taught to do something which he could not do before.

b. "Showing" where the actual tools and equipment which the worker will use "on the job" is most desirable.

3. ILLUSTRATING

This is really another method of showing. For purposes of instruction, "illustrating" means charts, diagrams, blueprints, sketches. Many a worker has had a point made clear to him by a sketch scratched on a cement floor, piece of boiler plate, or side of a casting. "Illustrating" is a most valuable tool that is used countless thousands of times every minute throughout the shops of the Nation.

- If a sketch or blueprint is used, be sure the worker understands it.
- Do not leave too much to the worker's imagination.
- Make sure the worker is able to translate your illustration into the actual conditions.

4. QUESTIONING or ASKING

"Asking" is an instructing tool which is useful throughout the entire instructional process if it is used properly.

- It can be used in preparing the worker for instruction.
- It can be used in checking the worker's grasp of the instruction.
- It can be used in helping the worker to think through the logical steps of his new job, which is the most important thing in good instruction.
- It can be used in combination with the other instructional tools such as "telling" and "showing."
- It is PARTICULARLY IMPORTANT that the questions which are asked are framed so that a "yes" or "no" answer cannot be given. Questions which begin with such words as "What," "Who," "When," "Where," "How," and "Why," cannot be answered in this fashion.
  - Well-selected questions keep the worker's mind active and concentrated on what is being taught.
  - Heightens worker's interest.
  - Stimulates his confidence by affording him an opportunity to show his own knowledge.
  - Gets active response from him and helps to make the points "stick." This is very important to the instructor.

Typical Problems That May Arise

Concerning Job Instruction Training

BE SURE YOU UNDERSTAND the problems noted below and their possible solutions. If you have ANY DOUBT or any further questions get in touch with the District Training Within Industry office. A thorough understanding of these problems and their solutions will enable you to meet practically any problems raised in your meeting.

1. How does this basic training idea differ from the training that every shop supervisor has done for years?

   - Most shop training has been by "accident" and by "good luck." Men have been placed on jobs and ALLOWED (often DARED!) TO LEARN. Gradually the men have learned, of course. But it is usually an expensive process. There is much scrap, many accidents, many delays.

   - This plan is founded on fundamentals:

     (1) Men are INSTRUCTED in their work.

     (2) They are given the job in SMALL DOSES, each learned PERFECTLY. This plan permits of no errors from the start. "DO IT RIGHT THE FIRST TIME" is the basic idea.

2. We foremen don't do any instructing in our shop. We turn the inexperienced fellow over to an "old hand." How could we use this plan?

   - Give the "old hands" this 10-hour program. Otherwise what assurance have we that these workers know how to instruct?

   or

   Perhaps full-time job instructors should be appointed to help carry the load for a limited period.

   or

   Perhaps the supervisors are taking the line of least resistance. Perhaps the supervisors SHOULD do more of the breaking in.

3. If we train experienced workers how to instruct they will want an extra dime or quarter an hour. What are we to do with that?

   - The specific answer to this question is beyond the province of this program. It deals with a local company practice and should be faced as it exists and solved as best fits the local situation. Perhaps the men <u>should</u> receive extra pay when "breaking in" other men, perhaps not.

4. What's a supervisor going to do when 10 to 20 new men show up for work at the same time?

   - The question of rate of induction is beyond the province of this program. It deals with a local company practice.

   - Here are three possible attacks, however:

   (1) Train a corps of assistants—perhaps workmen—who can help handle such a group during the first few days. Such men might really be "temporary" job instructors. Incidentally, this is a good way to line up some new "lead men."

   (2) Talk to the boss and the employment manager. Maybe they will agree that there is no production gained by sending too many men at a time.

   (3) Just "stagger through" as best you can. Put the men temporarily doing simple jobs where no damage will result, until you can instruct them one by one. For example: Sweeping up, carrying stock, cleaning parts, counting pieces, sorting papers, learning part names, checking supplies, etc., etc. Avoid having them stand around and "look on" if possible.

5. How can a long operation on a machine be broken up into small instruction units when the <u>whole job</u> must be run through without stopping?

   - Have the man do one part of the job; the instructor does the rest. Soon the man can be given the second part of the job, with the instructor doing the balance of it. In this way the worker can be taught the whole job in SMALL DOSES and still do each part PERFECTLY the first time and every time thereafter.

   - See pages 67 to 69 also for pointers on this problem.

6. Is it necessary to go through a complete Step I every time a worker is instructed?

   - Where there are several "instruction units" in ONE operation, naturally only one complete Step I is required. Such situations occur frequently. The instructor might spend a half hour or more with a worker, yet put over several instruction units. It would be most unnatural to start each new unit with a complete Step I.

   Example: Part - simple steel collar

   Operation - turning out the collar (originally cut to rough dimensions).

   The practical way to "put over" this job using the four steps is as follows:

Steps I, II and III.	Put in machine and true up.
Steps II and III.	Drill and ream.
Steps II and III.	Face one side and chamfer.
Steps II and III.	Set up for outside turning.
Steps II and III.	Turn outside - rough and finish.
Steps II and III.	Face and chamfer other side.
Step IV. (Covering entire operation.)	

7. Our shop is manned by all-round mechanics only. We train through a 4-year apprenticeship plan, so naturally this job training idea doesn't apply in this case.

   - On the contrary the job training plan advocated in this 10-hour program applies EXACTLY the same way in developing all-round mechanics as when developing production operators. An apprentice can learn a lot EASIER and faster and make fewer mistakes and delays if he too is instructed in SMALL DOSES and trained to do each perfectly. This means, of course, that first-line supervisors and many of the mechanics themselves must be given this 10 hours of training so they will know how to instruct apprentices in this thorough-going manner.

8. Is this a speed-up system?

   - Job Instruction undoubtedly increases production and often enables employees to reach their maximum output at an early date. Such results, however, are simply the by-products of intelligent and sympathetic handling on the job. If employees do turn out more production as a result of this program they do so "under their own steam" and because they learn easily and quickly. This plan simply gives each employee an opportunity to release his best efforts to the job.

9. Our plant is beating its production schedule now. We have never had to go through all this trouble to train men. Don't results speak for themselves?

   - Yes, of course. Fortunately, workmen can learn by themselves. In fact, this is the way that most industries have developed their work forces. This job training plan implies no criticism of the production job now being done. It simply proposes that any plant can do a BETTER JOB when workmen are "instructed" rather than just "allowed to learn."

10. How about some "orientation training" in Step I, i. e., telling a man something about the Company, his pay, hours of work, etc., etc.

    - Proper orientation of employees is just as important as proper job instruction; however, this program deals solely with Job Instruction. At the time an employee is concentrating his attention on how to learn his new work, no extraneous thoughts or information should be given him. This applies in all Four Steps.

      For example, if an employee should ask how many pieces he is to make, or what his rate is to be, or where he can park his car, or any other subject not related to learning the job, the supervisor should take care of these points at a more suitable time. His typical and tactful reply to a worker might be "we will talk about that matter just a little later — right now let's get the job under our belt."

11. Doesn't this plan take too much time? Everyone is already so busy that extra time is not available.

    - All training takes some time. Every minute should be effective. The Four Step method, plus the making of job breakdowns, does seem to take a little extra time. Actually it saves time. It probably doesn't consume more than perhaps three to eight or ten minutes each time instruction is given. Supervisors must remember that the giving of this three to ten minutes can save days and weeks of time later on, and large amounts of scrap and a large number of accidents. In literally thousands of cases the time required for employees to get up to production has been reduced as much as one-half, and scrap losses have been reduced up to sixty or seventy percent by giving those few minutes of additional time to initial instruction!

SUGGESTED INTRODUCTION

OF JOB INSTRUCTION TRAINER BY EXECUTIVE

* * * * *

Job Instruction is:

- a streamlined method of instruction
- sponsored by Company and Training Within Industry

This program is important:

- it will help you get the "know how" over, quicker and easier
- it applies to both new and experienced workers

The management:

- has approved this program
- is interested in the results obtained through its use
- has arranged for your attendance at each meeting

There will be:

- 5 two-hour sessions

held at _____ in _____ room, on _____

This is Mr. _____ from _____ who will conduct the sessions.

S GOVERNMENT PRINTING OFFICE 16—32106-2

III—Job Methods

The Training Within Industry program of Job Methods was developed in order to provide management with a tool whereby supervisors could acquire skill in improving methods.

The outlines for the five 2-hour sessions for a group of ten supervisors, a guide for the trainer, and the various forms used in the group are bound in the following section.

JOB METHODS

SESSIONS OUTLINE

and

REFERENCE MATERIAL

Copy No. _____

For the Personal Use of

_____

As a War Production Trainer

TRAINING WITHIN INDUSTRY SERVICE
Bureau of Training
WAR MANPOWER COMMISSION
1943

Job Methods

A TRAINING WITHIN INDUSTRY PROGRAM

A plan to help the supervisor produce greater quantities of quality products in less time by making the best use of the manpower, machines, and materials that are now available

TRAINING WITHIN INDUSTRY SERVICE
Bureau of Training
WAR MANPOWER COMMISSION
1943

WAR MANPOWER COMMISSION

WASHINGTON, D. C.

SEPTEMBER 1943.

TO THE WAR PRODUCTION TRAINER:

As you help war production supervisors use this JOB METHODS program, you have a rare opportunity to serve the Nation in this emergency.

You also have a major **obligation** to the Nation, as well as to each supervisor.

The situation is a very practical one. Most of the men with whom you will work have had years of experience. They have latent ideas which, if properly developed, will increase production, reduce lost time, prevent waste of material, and increase the use of machinery and equipment. These men command your respect because of their knowledge.

Your function is to show them how to fully develop their ideas for practical use and present them successfully to their Managements. You have two jobs to do: One is to help the supervisor to acquire skill in the use of this "precision tool" for improving job methods; the other is to improve your own ability in training supervisors how to use it effectively.

You should strive with all the energy and diligence you possess to lead each group in the very best possible way—and to do a still better job with each succeeding group.

To assure a uniformly high standard, you should ALWAYS work from this outline. Never deviate from it. Don't trust to your memory, regardless of how many times you may present the plan. It is not difficult and if you follow instructions you can't fail. Furthermore, you will find it a fascinating job.

Once again, leadership in this Jobs Methods Program presents a **personal opportunity** and an **obligation.**

Sincerely,

C R Dooley

Director,
Training Within Industry.

SKILL IN IMPROVING JOB METHODS MEETS ONE OF THE SUPERVISOR'S FIVE NEEDS

1. **Knowledge of the Work.**—Materials, machines, tools, processes, operations, products, and how they are made and used.
2. **Knowledge of Responsibilities.**—Policies, agreements, rules, regulations, schedules, interdepartmental relationships.

These two knowledge needs must be met currently and locally by each plant or company.

Such knowledge must be provided if each supervisor is to know his job and is to have a clear understanding of his authority and responsibilities as a part of management.

3. **Skill in Instructing.**—Shortening training time by breaking down each job into units easily learned, making the learner receptive, presenting the instruction, trying out his performance, following up for results.
4. **Skill in Improving Methods.**—Utilizing materials, machines, and manpower more effectively by having supervisors study each operation in order to eliminate, combine, rearrange, and simplify details of the job.
5. **Skill in Leading.**—Increasing production by helping supervisors to improve their understanding of individuals, their ability to size up situations, and their ways of working with people.

These three skills must be acquired individually. Practice and experience in using them enable both new and experienced supervisors to recognize and solve daily problems promptly.

Training Within Industry Service assists companies in giving their supervisors a start in acquiring these skills through three 10-hour programs: Job Instruction, Job Methods, Job Relations.

These skills, acquired through this training, must become a part of day-to-day OPERATIONS. In no other way can production be so quickly influenced and manpower conserved.

Confidence and resourcefulness in how to proceed, not standardized solutions and rules, are developed. These enable supervisors to get good teamwork, to give better service, and to get out more production.

MORE PRODUCTION THROUGH SKILLED SUPERVISION!

SESSIONS OUTLINE

FOR THE

FIVE TWO-HOUR SESSIONS

Paragraphs in quotation marks are to be presented either by using the exact words of the text or expressing the exact meaning in the Trainer's own words. In case of the latter, special care should be taken to convey the exact meaning every time.

Wherever the expression "(some discussion)" appears, there should be brief discussion to make the point clear or to reach agreement with the group.

Words in **bold face** are key words which provide the Trainer with a quick clue to the statement made in the sentence.

BEFORE YOU BEGIN SESSION I

BE SURE YOU HAVE THESE MATERIALS

1 Attendance Record
1 Suggested Introduction
14 Present Method Layouts
14 Proposed Method Layouts
14 JM Instruction Cards
14 Present Method Break-Downs
14 Proposed Method Break-Downs
28 Blank Break-down Sheets

Demonstration Kit consisting of:

1 Fixture
2 Jigs
2 Staplers
1 Stamp Pad
250 Brass Cards
250 Copper Cards
1 "TOP" Stamp

BE AT THE PLANT 30 MINUTES BEFORE SESSION IS DUE TO OPEN

See the Plant Executive. Make certain he is prepared to open the meeting with a suitable introduction. Give him a copy of the SUGGESTED INTRODUCTION if he has not already received one.

BE AT THE MEETING ROOM 15 MINUTES AHEAD OF TIME

Arrange CHAIRS around the conference TABLE. If there is no table, place chairs in the shape of a "U."

Put a FINISHED SHIELD on the table, also ONE COPPER SHEET and ONE BRASS SHEET.

Place TWO CHAIRS, to be used as SUPPLY BOXES, SIX FEET BACK of the table.

Put a supply of COPPER SHEETS on one chair, and of BRASS SHEETS on the other.

Place TWO waste-paper BASKETS to the RIGHT of the table (to serve as SCRAP BINS).

Put one STAPLER, the STAMP PAD, and STAMP on the table.

Place a waste-paper BASKET to the LEFT of the table (to serve as a TOTE BOX).

Put the extra STAPLER, the JIGS and FIXTURE, out of sight of the Group.

Place SAMPLE HAND-OUT SHEETS and INSTRUCTION CARDS on the table.

WORK FROM THE OUTLINE—DON'T TRUST TO MEMORY

OUTLINE FOR SESSION I

TIME TABLE

Allow 5 min.

1. INTRODUCTION BY THE PLANT EXECUTIVE

Suggested introduction

- Program **name** and **purpose.**
- **Need for Job Methods** in this company.
- Pledge of **cooperation and support.**
- **Schedule** of Sessions II, III, IV and V.

5 min. to here

- **Introduction** of the **trainer.**

Allow 10 min.

2. INTRODUCTION BY THE TRAINER

Establish an informal atmosphere

See p. 70

- **Write your name** on the blackboard and **state** your **industrial connection.**
- Use **name cards** if practicable. Have members put **names** of their **departments** on cards.
- Have **each** member **say a word about** his **job.**
- **"This** is an **informal conference,** similar to Job Instruction Training Sessions. **Ask questions** at any time. **No notes** are necessary."
- Cover the **"five needs" of every supervisor.** (Not over 3 minutes.)

See p. 71

"What is our purpose?"

- "I'm **not** here **to tell** you **how to run** your **jobs or** to **discuss** the **technical** part of your **work.** We **will discuss** one problem common to all of us: **How to improve Job Methods."**

TIME TABLE

– "This Job Methods **program will help you produce greater quantities** of **quality products** in **less time by making** the **best use** of the **manpower, machines,** and **materials now available.**"

– "This **program will not make people work harder,** or in a hurry, as you will see as the program unfolds."

– "We all realize that the **responsibility for production** is **assigned** to us as **supervisors.**"

– **"We must increase production in spite of** acute **shortages** of manpower, machines, and materials."

"Why do we need increased production?"

– "This is the **critical year of** the **war.**"

– **"Today, thousands** are **risking** their **lives—tomorrow,** thousands **more will face** the same **risk."**

– **"Best quality** fighting **equipment** and **in huge quantities** will help **win** this **war."**

– **"Your** complete **cooperation and support** of this program **will help** to **meet** the **crisis."**

15 min. to here

---

3. JOB METHODS IMPROVEMENT IS NOT A NEW PROBLEM

Allow 5 min.

"Where is the best source of ideas for giving us this necessary increased production now?"

– "It is **the supervisor,** the person **who knows** more about **the jobs** under him than anyone else." (Some discussion.)

– **"Everyone** in this group no doubt **has** some **ideas on how to improve methods."**

– "Perhaps **we have never** fully **developed them all."**

TIME TABLE

"Job methods improvement has always been a regular part of every supervisor's job"

– "Most of the **progress** we enjoy **today is** the **result of improvements** in production methods."

– **Cite examples of improvements** on: Automobiles, Radios, Planes. Get **members** to **compare old and new models.**

– "These **results** have been **accomplished by improvements developed** and applied **by** practical **supervisors** like ourselves."

– **"Ordinarily** these improvements are **made slowly."**

– "But our **fighting forces can't wait.** They **need them today! Time is short!"**

"The purpose of this plan is to make it easier for us to improve our job methods"

– "It will provide **a practical plan** to help us."

– "This **plan** has been **tried and proved** in hundreds of war production plants."

– "It was **developed by** practical **industrial men."**

– **"We'll discuss** the **plan and** see **how** it can be **used** on our jobs right now."

– **"During** the *next four* **sessions** each of us **will** have a chance to **use the plan** on jobs in our departments."

– **"A certificate** from the War Manpower Commission will be given to each member who presents an **improvement—attends all five sessions and pledges to use the plan."**

– **"I have used** this **plan on my** own **jobs and know** how well **it works."**

20 min. to here

TIME TABLE Allow 5 min.

4. DESCRIBE THE USE OF THE DEMONSTRATION JOB

"This plan can be best demonstrated by showing how it was applied to an actual job" *See p. 71*

- "The **job** is **from a war plant—not this plant."**
- **"Observe** this **job in terms of any job** in your own department."
- "The **same** kinds of **improvements** made on this job can be made **on any job which includes one or more of three** basic **types of work."**
- **Ask members of the group to name the different types of work done in their Departments.** *See p. 72*

Blackboard

1. Material Handling
2. Machine Work
3. Hand Work

- "The demonstration job includes **material handling, machine work,** and **hand work. These** are the features to be compared to **your** jobs—**not** this product, **nor** this operation."
- "Let's be sure none of us thinks **this plan** doesn't apply to **our work**, just because we don't make this particular product."
- **Note:** Discuss and stress until thoroughly understood.

Describe the job

- **Product:** Radio Shields. **(Show sample.)**

TIME TABLE

– **Materials:** Copper and Brass Sheets, 5″ x 8″ x ¼″. (**Explain** use of **cardboard. Show sample**)

– **Operations:** Inspect, Assemble, Rivet, Stamp, and Pack. (**Explain** use of **stapler** in place of Riveting Machine. **Show stapler, stamp and pad**)

– **Operators: 4 men** at 4 **benches.**

25 min. to here

– **Work place:** Supply, Scrap, and Tote Boxes.

Allow 10 min.

5. DEMONSTRATE THE PRESENT METHOD

Follow present method layout and present method break-down exactly *See pp. 72 to 74*

– **Do the job at a good pace.**
Tell them **what** you are **doing.**

– **Get, inspect** and **lay out 12 copper** sheets.

– **Get, inspect** and **lay out 12 brass** sheets.

– **Stack sets** of sheets to the right of Riveter.

– **Rivet** each Set. (**Do at least 3**)

– **Stamp** each Shield. **Pile** Shields on Table.

– **Place** 12 Shields **in tote box.**

– **Carry 75-lb** tote **box 50 feet to** the **scale.**

– **Weigh and** make out **ticket.**

– **Handler takes** tote **box 100 feet to Packing Dept.**

– **Packer unloads box, puts 200** Shields **in case.**

– **Packer closes, stencils,** and **weighs** case.

– **Empty** tote **boxes returned** by Handler.

TIME TABLE

HAND OUT PRESENT METHOD LAYOUT

– **Point out flow of material** and bench arrangement.

Discuss the 3 types of work on the demonstration job

– **Material handling**—"Carrying Boxes." (some discussion)

– **Machine work**—"Riveting." (some discussion)

35 min. to here

– **Hand work**—"Laying out, Lining up, Stamping." (some discussion)

Allow 10 min.

6. DEMONSTRATE THE PROPOSED METHOD

A better way of doing this job

See pp. 74 to 75

– "Let's **look at a better method** of doing this job. It was worked out **by** the **foreman** with the help of an operator—**after they applied** the **Job Methods plan."**

– **"Consider** this **improvement in terms of any job** in your department."

– "First we will see **what** they did, and then develop **how** they did it."

Set up the proposed method and explain the changes

– "The **sheets** were **delivered onto** the **bench."**

– **Explain and show** Riveting **fixture and guides.**

– **Describe and show jigs** for sheets.

– **"Less experienced operators** were **used** with the new method. More **experienced,** stronger **men** were **upgraded."**

– **Explain slots** for scrap.

– **"Cases** were **placed** at the bench **by the handler."**

TIME TABLE

Perform the proposed method

See pp. 75 to 76

- **Follow proposed method layout and proposed method job break-down exactly.**
- Place **sheets in jigs.**
- **Pick up sheets and inspect.**
- **Assemble and place in fixture.**
- **Rivet** bottom—then rivet top. (**Do at least 3**)
- **Place** Shields **in front of fixture.**
- **Place** 20 Shields **in case.** (**Explain count**)
- **Handler** takes Cases **to** the **Packing Department.**
- **Packer closes, weighs,** and **stencils** the Cases.

HAND OUT PROPOSED METHOD LAYOUT

- **Point out flow of material** and Bench Arrangement.
- **Compare with present** method **layout.**

45 min. to here

---

7. RESULTS OF THIS JOB METHODS IMPROVEMENT

Allow 5 min.

Question the Members for Their Estimate of the Improvement in the use of Manpower, Machines, and Material.

- **As to Production?—"Each Operator Produced Three Times as Many Shields Per Day."** (some discussion)
- **As to Machine Use?—"Each Machine Riveted 50 percent More Shields Per Day."** (some discussion)
- **As to Scrap?—"Scrap Material was Reduced** from **15 percent** to less than **2 percent,** due to less handling of sheets." (some discussion)

TIME TABLE

– **"Improvements** were made **by making better use of manpower, machines,** and **materials."**

"The operator did not have to work harder or in a hurry on this proposed method"

– "Doing jobs in a **hurry results in bad work."** (some discussion)

– **Act out** a **"speed-up"** of the **present method** to prove the above point. **Actually hurry!**

– "This **would create waste**:—the very thing we are trying to eliminate."

– **"Absolutely not one worker should be speeded-up in any application of the Job Methods plan!"**

– **"Improved job methods give good work**—because production is increased **by eliminating unnecessary parts** of the job—**and making** the **necessary parts easier and safer to do."**

"The principles used in the demonstration apply to all jobs that include material handling, machine work, or hand work"

– "This **demonstration** job is **only a sample job."**

– **"Hundreds** of other **jobs in** the **same plant** were **improved in** the **same way."**

– "Let's **see how** the Job Methods **plan was used by** this **foreman** in making this improvement."

– **"Also** let's see **how** this **plan will help us** make many improvements **on our jobs."**

– "The details of this **plan** are **printed on** this pocket-sized **instruction card."**

HAND OUT INSTRUCTION CARDS—1 to each member

– NOTE.—**Clean up the table.**

50 min. to here

TIME TABLE
Allow 2 min.

8. PRESENT THE JOB METHODS PLAN

Present the 4-step plan from the instruction card

- **Read** the **purpose.**
- **Read only** the **4 main steps.**
- NOTE.—**Keep the card in your hand from now on.**
- "These 4 **steps** are all that were **used by** the **foreman in** improving this **sample job.**"
- **"Let's apply** the **4 steps to** the **sample job to see how** the **foreman used** this **plan."**
- **"Also** to find out **how we can apply the plan to our jobs."**
- NOTE.—**Erase blackboard.**

52 min. to here

Allow 8 min.

9. STEP I: BREAK DOWN THE JOB

Read entire STEP I

BLACKBOARD

STEP I.—BREAK DOWN The Job List **ALL** Details

"A job break-down is the starting point for all job methods improvements"

- **"Listing all details gives a complete record and accurate picture of** how the **job** is done."
- "It **indicates** the **NEED for improvements."**
- "It **brings out** many **details** about the job **we never realized** were there."

TIME TABLE

– "A detailed **break-down gives** us the **facts.**"

– **Cite personal examples** of familiar details difficult to remember: **Buttons—pockets—steps on porches—windows in rooms—etc.**

– "The **more detailed and accurate the breakdown, the more complete the improvements will be.**"

– **"Let's define a detail**—'Every single thing that is done, every inspection, every delay.' "

– **Develop** the first **five details of** the **demonstration** job **on** the **blackboard** quickly and accurately.

Blackboard

1. Walk to box of Copper Sheets
2. Pick up 15 to 20 Copper Sheets
3. Walk to bench
4. Inspect and lay out 12 sheets
5. Walk to box and replace extra sheets

– Point out **how easily and quickly** these **five details** were **listed.**

– "Here is a **copy of** the **complete break-down** for this job as **made by the foreman.**"

HAND OUT THE PRESENT METHOD BREAK-DOWN

– **Compare** first five details on **break-down** with those on **blackboard.**

– **Discuss the details.**

– "The **little time** you spend listing details often uncovers **BIG improvements.**"

– **Explain items at top of break-down sheet.**

TIME TABLE

– Explain use of **notes column** as **a reminder** of Distances, Tolerances, Waste, Safety, etc.

– Explain the **difference between** the break-downs for **Job Instruction** and those for **Job Methods.**

– **"In Job Instruction,** only the **important steps** are listed. **A step may include several details."**

– "Because, when instructing, many **steps** are obvious and need not be listed."

– **"In Job Methods,** on the other hand, **ALL details must be listed."**

– "Because **nothing** can be **omitted when studying the method** of production."

"A break-down is an easy, common-sense way to get all the facts about any job method quickly and accurately"

– **"The best place to make a break-down is on the job; not from memory."**

– **"Let** the **operators know what** you are doing **and why** you are doing it."

– "Show him the break-down; let him help you make it; tell him about these meetings; show him the card; do whatever is appropriate; be frank and open."

– "We have seen how **easy** it was **to make** a **break-down for** the **demonstration** job."

– **"How many** of us **can make a break-down** of a job in our own department **by listing all details** the way Bill Brown did?"

– **Ask** for a **show of hands.**

– **"Now** we will **find** out **how** a **job break-down** is **used in** applying **STEP II."**

60 min. to here

– NOTE.—**Erase the 5 details ONLY.**

TIME TABLE Allow 15 min.

10. STEP II: QUESTION EVERY DETAIL

Read Item 1 of STEP II

– "The **success of** any **improvement depends on our** ability to develop a **questioning attitude."**

– "We must **question everything** that is done; **every single detail** of the job."

– "These **six** very important **questions taught us** practically **all we know."**

– **"Young people ask questions** to get knowledge. **Many of us stop** questioning things **too soon."**

– "We must **deliberately question all** the **details** of the job we want to improve."

– "The **answers** to these questions will **give** the **information** we need **to make improvements."**

– **Ask** Group **members to read** you the **questions.**

Add on blackboard

STEP II
QUESTION

Why?
What?
Where?
When?
Who?
How?

– "These **questions** are **asked in definite order."** (some discussion)

– "Asking **'How' before 'Why' and 'What'** would **waste time if** the **detail was** found **unnecessary."**

TIME TABLE

– **"ALL questions** should be **asked of each detail before proceeding to** the **next** detail."

– **"Let's examine each** of the six **questions."**

"First.—WHY is it necessary?"

– "We **ask** this question **first** for each detail."

– "We want to **distinguish necessary** details **from** those that are **unnecessary or doubtful."**

– "This is a **most important** question."

– "It provides the **information** that **leads to big improvements if** we find **many unnecessary details."**

– "It is often the **hardest** to get **answered** properly."

– "Therefore we **have** a **check question to** make sure we **get sound** and reasonable **answers."**

"Second.—WHAT is its purpose?"

– "We want to **find out if** the **detail has** a **useful purpose or adds quality** to the product."

– **"If not,** we will **reconsider** its **necessity."**

– **" 'What** is its **purpose?'** is a **check question on 'Why** is it **necessary?' "**

"Beware of taking action on flash ideas for improvements"

– **"As we get** definite **answers** to these questions, **flash ideas** for improvements will **come** to our minds **rapidly."**

– **"Hold** these **ideas, but note** the **answers on** the Break-down Sheet."

TIME TABLE

– **"Don't decide on** anything **yet. Keep** on **questioning. A better** and more complete **idea usually develops."**

– **"If** the **detail** is **necessary—Continue with** the **other** four **questions."**

"Third.—WHERE should it be done?"

– "We ask this question **to find the best PLACE** to do each detail."

– "In which **department?** In which **section?** On which **machine, bench,** or **equipment?"**

"Fourth.—WHEN should it be done?"

– "We ask this question **to find the best TIME** to do each detail."

– "Should the detail be done **first or last?** In **what order?** Must it be done **before or after** some **other details?"**

– **"When will** the necessary **men, machines, materials,** equipment, or tools **be available?"**

"Fifth.—WHO is best qualified to do it?"

– "We ask this question **to find the best PERSON** to do each detail."

– **"Who** is best for the job **from** the **standpoint of skill? Experience? Physical strength?"**

"Sixth.—HOW is 'the best way' to do it?"

– "We **ask** this **of every necessary detail** only **after** we have asked **Where? When?** and **Who?"**

– "We want **to find** out if there is **a BETTER WAY** to do each detail."

TIME TABLE

– **"Usually** there is a **better way,** but to find it we **must** first **question** the **'how?' of** the **necessary details."**

Read Item 2 of STEP II and comment as follows:

– "These **are** very **important factors** in any job."

– **"Each** item should be **questioned** the **same as** the **details** in the Job Break-down."

– **Cite** an **example,** if appropriate, as you discuss any of the following:

– **"Materials, machines, equipment,** and **tools** are **often scarce** and hard to get."

– **"A small change in design may make** possible a **big** Job **Methods improvement."**

– "An **improvement in** the **layout** of the area or the work-place **may save floor or bench space."**

– **"Poor safety** and **poor housekeeping can** cause **waste** of **lives, time,** and **space."**

"Now, let's see how Bill Brown used these questions on the details of his job"

– Ask the Group to **follow** the **present method break-down.**

– "Bill Brown got these answers to his questions."

– "Whenever he got a good 'clue,' he wrote it down in the **notes column."**

– **DETAIL No. 1.—WALKING.** **Answers**

– **Why?** ____ | **Not necessary if sheets can be**
What? ____ | **moved nearer to bench.**
(Write in **notes** column: **"No,** if sheets nearer bench.")

TIME TABLE

– **DETAIL No. 2.—PICK UP COPPER SHEETS.**

– **Why?** ..... **Necessary to assemble the shield.**

What? ..... **Necessary to assemble the shield.**

Where? ..... **Close to riveter.**
(Write: "Close to Riveter")

When? ..... Any time **before assembly.**

Who? ..... **Riveting operator.**

How? ..... Must be a **better way.**
(Write: "Better way")

– **DETAIL No. 3.—WALK TO BENCH.**

– **Why?** ..... Unnecessary to walk over; unnecessary to walk back.
(Write: "Same as #1")

– **DETAIL No. 4.—INSPECT AND LAY OUT COPPER SHEETS.**

INSPECTION (4a)

– **Why?** ..... **Necessary to maintain quality.**

What? ..... **Necessary to maintain quality.**

Where? ..... At the **riveting bench.**

When? ..... **Just before assembly.**
(Write: "Just before assembly")

Who? ..... **Riveting operator.**

How? ..... Look for a **better way.**
(Write: "Better way")

TIME TABLE

LAYOUT (4b)

– Why? ..... **Not necessary, adds no quality** to the product if the sheets are moved close to bench.
(Write: **"No,** if sheets nearer bench")

– **DETAIL No. 5.—WALK TO BOX AND REPLACE EXTRA SHEETS.**

– Why? ..... If **no** need to walk to box to **get** sheets, **no** need to **walk** to **replace.**
(Write: "Same as #1")

– **DETAIL No. 6.—WALK TO BOX OF BRASS SHEETS.**

– Why? ..... If **no** need to **walk** for **copper** sheets, why walk for **brass** sheets?
(Write: "Same as #1")

– **DETAIL No. 7—PICK UP BRASS SHEETS.**

– Why? ..... Same as with Copper sheets.
(Write: "Same as #2")

– **DETAIL No. 8.—WALK TO BENCH.**

– Why? ..... More walking.
(Write: "Same as #1")

– **DETAIL No. 9.—INSPECT AND LAY OUT.**

– Why? ..... Same as with Copper sheets.
(Write: "Same as #4")

– **DETAIL No. 10.—WALK TO BOX AND REPLACE EXTRA SHEETS.**

– Why? ..... More walking to replace sheets.
(Write: "Same as #1")

– **DETAIL No. 11.—WALK TO BENCH.**

– Why? ..... More walking.
(Write: "Same as #1")

TIME TABLE

– **DETAIL No. 12.—STACK 12 SETS. (CRISS CROSS)**

– **Why?** ..... Not necessary if layout is not necessary.
(Write: **"No,** if no layout")

DETAILS No. 13 to No. 20 Inclusive.—RIVETING.

– "Bill questioned Details 13 to 20 in exactly the same way. He questioned **each** detail **separately."**

– "To conserve time in this meeting, let's just look at the information he noted."

– "On each detail, Bill felt there must be a "better way." (Write: "Better Way" after each)

– **DETAIL No. 21—STAMPING.**

– **Why?** ..... Specification calls for it.

What? ..... **Doubtful**—Could find **no** good **reason for** this **detail.** Let's find out why?
(Write: "Find out")

– **DETAILS No. 22 to No. 30** inclusive.—Were questioned by Bill Brown in the same way.

– "He **QUESTIONED** the necessity of **CARRYING AND WEIGHING** the tote boxes."

– "And he found that **COUNTING** and **PACKING** could be done **ANYTIME** and **ANYWHERE AFTER** riveting."

TIME TABLE ↓

1 hr. 15 min. to here

– "**While** he was **questioning and getting** definite **answers he did not make any changes.**"

– "**When all details** on the break-down **have been thoroughly questioned**—then we are ready to **use STEP III.**"

Allow 15 min.

11. STEP III: DEVELOP THE NEW METHOD

Read TITLES of Items 1, 2, 3, 4 of STEP III

Blackboard—Add

STEP II	STEP III
QUESTION	DEVELOP
Why?	
What?	
Where?	
When?	
Who?	
How?	

– "**Answers to** the **questions** asked **in STEP II lead to developing** a New Method **in STEP III.**"

– "**We** can **increase production** only **when details are eliminated, combined, rearranged, or simplified.**"

– "**Notice** the **order of** the first four **items**—To **'eliminate' after 'simplifying' would waste time.**"

"Item 1.—ELIMINATE unnecessary details."

– "The **answers to Why? and What? lead** us **to eliminate unnecessary** details."

– "**We eliminate** details **to avoid unnecessary use** of Manpower, Machines, and Materials."

TIME TABLE

Blackboard—Add

STEP II QUESTION	STEP III DEVELOP
Why? What?	→ Eliminate!
Where? When? Who? How?	

"Let's see how Bill Brown eliminated unnecessary details"

- **Have group** check or **cross off each detail** on the Present Method Breakdown as it is eliminated.

- "From his notes, Bill **decided** that **details No. 1, 3, 5, 6, 8, 10, 11** (Walking) would be **unnecessary if** the **sheets** could be **delivered nearer** the **bench.**"

- "Bill found **room on** the **bench** for the supply boxes. He found it was **no extra work** for the **handler.** So **he eliminated** all of **these** details."

- "The **details No. 4b, 9b** and **12** (Laying out and Stacking) **added no quality** if sheets were moved to bench—**so** he **eliminated them.**"

- **"Detail No. 21** was found to be **unnecessary,** therefore it was **eliminated."—EXPLAIN STAMPING STORY.** *See p. 76*

- **"Details No. 23 and 24** (Carrying and Weighing) served **no** useful **purpose** since Shields were sold by count. So these details were **eliminated."**

"Item 2.—Combine details when practical."

- "The **necessary details** should be **combined whenever** it is **practical** and **possible.**"

TIME TABLE

– "The **answers to Where? When?** and **Who? are leads for combining** necessary details."

Blackboard—Add

STEP II QUESTION		STEP III DEVELOP
Why?	→	**Eliminate!**
What?		
Where?	→	**Combine!**
When?		
Who?		
How?		

– "Possibilities for **combining** details are often discovered by finding the **best place, best time,** and **best person** to do each detail."

– **"Details** are **combined to reduce inspections and handlings** between operations."

"Let's see how Bill Brown combined some of the necessary details on the demonstration job"

– "He had asked of **details Nos. 22, 26, 27 Where? and When?** should the **shields** be **packed and by Whom?."**

– "He **decided** to bring the **cases** to the **bench** and **pack** them there. Therefore the **three** details were **combined."**

"Item 3.—REARRANGE details for better sequence."

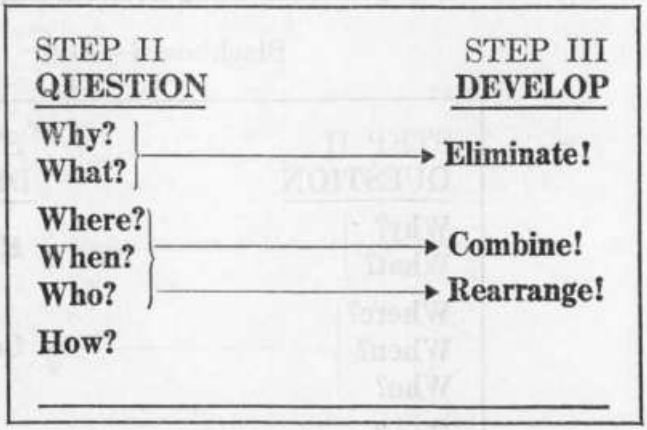
– "If **necessary details can't** be **combined,** they **may be rearranged** for better sequence or order."

– "We **rearrange** details **to reduce handlings and back-tracking."**

– "The **answers to Where? When?** and **Who?** also give **leads for rearranging** necessary details."

TIME TABLE

Blackboard—Add



– **"Rearranging** the **order** of details often **saves** unnecessary **moving** of **parts and avoids** unnecessary **picking up** and **putting down** details."

"Let's see how Bill Brown rearranged some of the necessary details on the demonstration job"

– "Because **he** had **changed** the **location of** the **supply boxes,** he had **to rearrange** the details of **picking up** the Copper and Brass **sheets."** (Nos. 2 and 7)

– "Since he **no longer laid out** the **sheets,** he **had to rearrange** the **inspection** details." (Nos. 4a and 9a)

– "It was **not necessary to carry boxes to** the **scale, and** the **cases** were **packed at** the **bench. So** he **rearranged** the **delivery of cases to** the **Packing** Department." (No. 25)

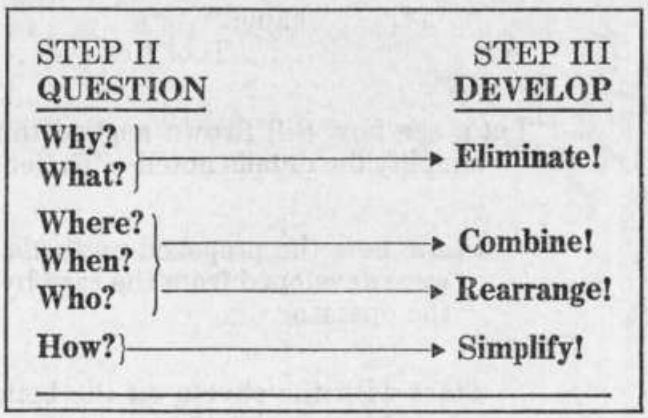
"Item 4.—SIMPLIFY all necessary details."

– "We **'simplify' to make** the **necessary details safer and easier** to do."

– "The **answers to How?** give us **leads for simplifying** necessary details."

TIME TABLE

Blackboard—Add



– **Read** and **explain** the **principles** under **Item 4.**

– **Pre-position materials, tools, etc.**—"To put into the best position for easiest pick up, ahead of time. In racks or holders."
. . . Pen Desk Set.
. . . Tools in rack.

– **Proper work area**—"Convenient reaching area."
. . . Varies with arm length.

– **Gravity feed hoppers**—"Using gravity to bring parts to the best place in the work area."
. . . Kitchen match dispenser.
. . . Magazine-feed furnace.

– **Drop delivery chutes**—"Disposing of a part or piece by dropping it through a chute to a container."
. . . Mail Chute.
. . . Coal Chute.

– **Both hands**—"Letting the two hands do useful work."
. . . Typewriter . . . Linotype.
. . . Simultaneous hand assembly.

– **Jigs**—"*Movable* mechanical holding devices."
. . . Clamp . . . Guide . . . Template.

TIME TABLE

– **Fixtures**—"*Fixed* mechanical holding devices usually used in connection with a machine."
. . . Tool Rest . . . Holder.

"Let's see how Bill Brown applied these principles to simplify the details noted—'Better Way'."

See pp. 76 and 77

– **Show how** the **proposed methods and work-place** were **developed from** the **card** by Bill Brown and the operator.

– Start with the **sheets on** the **bench—one riveter,** and **cases** beside the operator.

– **Demonstrate** all **changes** as you describe them. (From the card)

– "The sheets were **pre-positioned** in the proper work area."

– **"Jigs** were designed **to hold** the **sheets."**

– "An **angle arm** was added to **make the work easier."**

– "Now **both hands** could do useful work in picking up the sheets."

– "But it was still necessary to **line up** the sheets **by hand**—and to **use one hand for holding."**

– **"A fixture** was designed **to position two riveters."**

– **"Guides** were added **to line up** the **sheets."**

– "Now **both hands** could be used for riveting."

– **"Slots** were cut **in the bench and scrap boxes** were placed **under the bench."**

– So scrap could be discarded by **drop delivery.**

TIME TABLE

– **"Thickness** of the **fixture** was made so a pile of 20 completed shields was flush with the top."

– **"Cases** for finished shields were **pre-positioned** within **easy reach."**

– **"Gravity feed**—only principle **not used."**

– "The **principles on** the **card** were **used**—and **only these** principles."

NOTE.—**The group may offer ideas for further improvements**

– They **may suggest: Foot operated riveters . . . 4 riveters** in one Fixture . . . **A bar over 2** Riveters . . . Possibly a woman can do the job.

– **Compliment** the **members for** doing the **right** kind of **thinking**—you **know they** will **apply it to their jobs.**

Review how STEP II and STEP III are used in order to insure a complete improvement.

– "The answers to **Why? and What? identify unnecessary details to be eliminated."**

– "The **answers to Where?, When?, and Who? give leads for combining and rearranging."**

– "The **answers to How? supply leads for** developing 'the one **best way'** today **by simplifying."**

"Item 5.—Work out your idea with others"

– "We can often get **VALUABLE IDEAS** from the **'BOSS.'"**

– "He is the one who knows what changes will take place and where more production is necessary."

– "He can give us practical leads."

TIME TABLE

- "We can get **help from fellow supervisors.**" (some discussion)

- "Our **operators** can **help** us. Working out an idea **with** an **operator** is **especially** important." (some discussion)

- "Remember how **Bill Brown** 'worked with' one of his **operators.**"

  - **"Operators** have **good ideas** too; often just as many as **we** have—**sometimes more!"**

  - **"Don't** work out an idea and **spring** it on an operator. **None** of **us** would like that. Neither would the operator."

  - "When he **helps** work out an idea he gets **real satisfaction."**

- "An **interested** and **satisfied worker** is just as **important** as the **idea** itself."

- **"Usually everyone** is **glad to help if we ask him."**

"Item 6.—Write up your proposed new method"

- **"Many ideas 'die' before** they are **put into effect or** are **written down."**

- **"Write up exactly what** your **new method will do and how** it can be **done."**

- **"A written proposal is a** complete **summary of** your proposed **improvement."**

- "We **will discuss how to write** up a **proposal** in detail, **during Session II."**

- **"After we have** made a **job break-down—questioned** every detail—**and developed** the New Method—**we** are prepared to **put it to work."**

1 hr. 30 min. to here

TIME TABLE Allow 8 min.

12. STEP IV: APPLY THE NEW METHOD

Read entire STEP IV

Blackboard—Add

> Step IV—**APPLY** The New Method

– **"Improvements are of no value unless put to work."**

– "Using **STEP IV insures** the **success** of improvements."

– **"Lack of STEP IV,** in the past, **has prevented many** good **improvements** from **being put to work."**

"Item 1.—SELL your proposal to the BOSS"

Blackboard—Add

> Step IV.—**APPLY** The New Method
>
> **Sell—**

– "To **get** his **approval for** a **trial."**

– **"Give** him a **short, complete story—facts only—** in your written proposal."

– **"Use break-down sheets, samples, sketches."**

– **"Put it up to the boss at the appropriate time—** Watch your timing!"

HAND OUT PROPOSED METHOD BREAK-DOWN

– **Compare with present method break-down. Show how** they can be **used as** a **selling story.**

– **"Also use written proposals to explain what** this improvement will do **and how it can be done!"**

TIME TABLE

– **"List production increases and better uses** of Manpower, Machines, Material, Space, Equipment—**also quality and safety** improvements."

"Item 2.—SELL the new method to the OPERATORS"

– "So it will **get a fair test."**

– **"Perhaps** only **one** helped develop it, **but several** will have to **use it."**

– **"Instruct** Operators in new methods **carefully. Use** the **Job Instruction plan."**

– **"Get** the **operators' cooperation and ideas** on all improvements." (some discussion)

"Item 3.—Get FINAL APPROVAL of all concerned on SAFETY, QUALITY, QUANTITY, COST"

Blackboard—Add

Step IV—APPLY The New Method
Sell—Approvals—

– "Getting **approvals will prevent trouble."**

– **"Get approval of** immediate **supervisor on all factors."**

– "Where necessary, get approval for:"

– **"Safety**—Safety Engineers and Operators."

– **"Quality**—Inspectors and Laboratory."

– **"Quantity**—Production and Planning Depts."

– **"Cost**—Cost Department."

– **"Follow** regular **organization lines."**

TIME TABLE

"Item 4.—PUT the new method TO WORK—use it until a better WAY is developed"

Blackboard—Add

> **Step IV—APPLY** The New Method
>
> **Sell—Approvals—Use—**

– **"Avoid waiting, get action** as **quickly** as possible. **Waiting 'kills'** more **ideas** than lack of brains." (some discussion)

– **"Right now** is the time when **we need every** practical **improvement working** for us."

– **"Check** to be sure **the operators** don't slip back to the old, more familiar method."

– "Remember **there will always be a better way. Keep searching for** further **improvements."**

"Item 5.—Give CREDIT where credit is due"

Blackboard—Add

> **Step IV.—APPLY** The New Method
>
> **Sell—Approvals—Use—Credit**

– **"One stolen idea will stop all others."**

– **"Stopping ideas is sabotage."**

– "We want to **be sure we give proper credit and show** sincere **appreciation."**

– **"Ask** the **boss to say a word of apprec'ation** to the person who made or helped with the improvement."

1 hr.
38 min.
to here

– ' The **more credit** we give the **more ideas** we get."

TIME TABLE Allow 7 min.

13. SELL THE USE OF THE JOB METHODS PLAN

Review the 4-step plan

- **Read each step and the main items** under each.

- "These 4 steps were all the **foreman used** to make the improvement **on** the **demonstration job.**"

- "These **principles** are **all we need to make** thousands of valuable **improvements.**"

- Stress **importance of LEARNING** Instruction **CARD.**

"Would more improvements right now—today—help you with your present production problems?" (some discussion)

- **Use the following 5 paragraphs if more "selling" is necessary:**

  - **"One** improvement **each week** would **make** any Supervisor's **job easier,** reduce **'bottlenecks' and cut down** the number of **'trouble'** jobs."

  - "One **improvement today** is **worth ten times as much now** as it would be next year."

  - **"We can't afford to be 'TOO BUSY'** to find time to continually search for improvements."

  - **"Our** fighting **forces need greater quantities** of **quality products** in **less time to win** this **war."**

  - **"Improvements must be made now!"**

"Will this Job Methods plan make it easier for you to develop and apply improvements?" (some discussion)

TIME TABLE

– **If any say "no," point out** that the **plan will help on any** production **job** that includes Material Handling, Machine Work, or Hand Work.

– **To break down,** "Our work is different" **attitude, point out** that these **principles** have been **applied by others** to:

– Mass Production and Job Shops.

– Process, Assembly, Machine-tool, and Foundry Work.

– Airplanes, Tanks, Guns, Ships, Munitions, Chemical and Lumber Manufacturing.

1 hr. 45 min. to here

– **Get all to agree** that, "**It can be done.**"

Allow 10 min.

14. ASSIGN IMPROVEMENT DEMONSTRATIONS FOR SESSION II

"This is the whole story—Let's put it to work"

– **"Everyone will make** Job Methods **improvements."**

– **"Pick out a short job in your department** on which you need Greater Quantities of Quality Products in Less Time. Perhaps, **one** that's **giving** you **trouble."**

– **"Don't try to find** one that might show **startling improvement."**

– "Take **any job**—perhaps the **first** one that you think of—or the **first** one you **see** as you walk through the department."

– "Make a Job **BREAK-DOWN** of **the present method."**

– **"QUESTION every detail** on the Break-down."

TIME TABLE

– **"DEVELOP** the **new method."**

– "Make a **proposed method job break-down."**

– "If you **don't find** an **improvement on** the **first job, tackle another** one."

– "Get ready to **tell** us **how you APPLIED or will APPLY** the **new method."**

– "Bring **break-downs** and **samples, sketches, material, equipment,** and **tools to show both** the **present** and **proposed methods** to the Group."

– "About **20 minutes for both methods."**

– Ask **members to name** the **job** they will "tackle" for improvement.

– **"DO NOT BRING in any SECRET PRODUCTS or processes. Check this with your boss."**

Assign 3 improvement demonstrations for Session II

– **Get 3 volunteers** for Session II.

– **"Any short job** in your own **department."**

– **"All improvements must be NEW IDEAS**—no ancient history!"

– **Be sure they understand exactly what to do** for Session II.

– **Have them tell you** what they are going to do.

HAND OUT BLANK BREAK-DOWN SHEETS

1 hr. 55 min. to here

– 2 to **each** member—1 for **present,** 1 for **proposed.**

TIME TABLE Allow 5 min.

15. RESISTANCE AND RESENTMENT— AND CLOSING

"Two human failings have stopped many improvements from being put to work."

– **"The first of these is RESISTANCE to new ideas."**

– "Don't be surprised if someone with whom you are checking over an idea tells you, 'The Present Method has been successful for twenty years— **why change it?'** That is a **natural** reaction."

– **"Be careful of** the natural **resistance everyone** seems to **have** toward new improvements."

– "We **all** tend to **defend past practice, precedent, tradition, custom, habit**—and to argue against any new ideas."

– **Cite** some **examples** of resistance to such things as: Balloon Tires, Hydraulic Brakes, Clipper Planes.

– **"Don't let resistance interfere** with improvements."

– "The **principles of the Job Methods plan** are **not new.** They were **developed thirty years ago."**

– "Job Methods is a **streamlined and simplified** version of tried and proved **principles."**

"The second failing is RESENTMENT of criticism"

– "Perhaps **someone may interpret** our **search for a better method as personal criticism."**

TIME TABLE

– "It is **up to us to explain our purpose, which is** a constructive search for a better way **to get out the production needed for** the **war** effort."

– **"Let's not be afraid to** bring in improvements that may **infer criticism of ourselves,** i. e. 'Why didn't you think of that one before?' "

– **"Our discussion of each** job **improvement will be** only **constructive, not personal criticism."**

– "Let's **be sure** that **fear of criticism doesn't stop** any of our **ideas** for improvements."

Close promptly with these remarks

– **"Remember the job we** all **have to do** in this War of Production."

– "Keep in mind that **improving job methods is** part of **our fighting assignment."**

– Stress how **job methods improvements will help** in our drive to **produce greater quantities** of **quality products** in **less time.**

– **"Learn** the **instruction card** before Session II."

– **"Remember** your **assignments** for Session II."

– "Bring in **break-downs, sketches, materials,** etc.— for actual demonstrations."

– **"Session II** will be held on:

..... (Day) from ..... (Hour) to ..... (Hour)."

– **Collect name cards** for use at other Sessions. **Record attendance.**

End of 2d hr.

BEFORE YOU BEGIN SESSION II

BE SURE YOU HAVE THESE MATERIALS

Extra JM Instruction Cards
Extra Blank Break-down Sheets
14 Sample Proposals
14 Proposal Sheets
3 Proposal Reports
Attendance Record

BE AT MEETING ROOM 15 MINUTES BEFORE SESSION IS DUE TO OPEN

Arrange chairs. Look after ventilation, blackboard, chalk, eraser, etc.

REMEMBER

In Session II the emphasis is on STEP I: Break down the job.

WORK FROM THE OUTLINE—DON'T TRUST TO MEMORY

If you are invited to visit operations in the Plant, BE ABSOLUTELY SURE YOU DON'T YIELD TO THE TEMPTATION OF GIVING AN "EXPERT'S" OPINION AS TO IMPROVEMENT OF ANY OPERATION YOU OBSERVE.

OUTLINE FOR SESSION II

TIME TABLE
Allow 5 min.

1. OPENING THE SESSION

Opening remarks

- **Keep** the **meeting informal.** Hand out **name cards.**
- **Express appreciation of the group's interest** in improvement of Job Methods as indicated by their coming promptly.
- "We **have seen** how the **4-step** Job Methods **Plan** was **applied to** a **sample job.**"

5 min. to here

- "We will **now see how** these principles can be **applied to our** own **jobs.**"

Allow 10 min.

2. REVIEW SESSION I

Review purpose and 4 steps of the Job Methods plan

- **Emphasize** the **purpose.**
- **Have** the **group** give you the **4 steps and** the **main items** under each.

Blackboard

STEP I.—BREAK DOWN The Job
List **ALL** Details

STEP II **QUESTION**	STEP III **DEVELOP**
Why? / **What?**	→ **Eliminate!**
Where? / **When?**	→ **Combine!**
Who?	→ **Rearrange!**
How?	→ **Simplify!**

STEP IV.—APPLY The New Method
Sell—Approvals—Use—Credit

TIME TABLE

– **Review** the **use of each step and each item** as you put them on the black board.

15 min. to here

– Stress the **relation of STEP II** to **STEP III.**

Allow 1 hour 20 min.

3. PRACTICE DEMONSTRATIONS—TWO JOBS

"The purpose of each demonstration is to learn by doing"

– **"When** we're **convinced** the **plan** can be **practically applied, we can make many improvements."**

– "We are **interested in both** the **improvements and** the **application of** the **4-step plan."**

"To get maximum benefit and to make the demonstrations clear to everyone each member will follow this procedure"

– **Brief the following 8 points on the blackboard:** *See p. 77*

– **"Describe** briefly the **job** you have 'tackled' and explain samples and sketches you will use."

– "Demonstrate the **present method."**

– **"Show present** method **break-down** and **read details."**

– "Explain **what information** and leads you **obtained from** the **answers to questions in STEP II."**

"Explain **how** this **information helped** you to **eliminate, combine, rearrange and simplify** details **while developing** the **new method** in **STEP III."**

– "Demonstrate the **proposed method."**

– "Explain **how you used,** or will use, the items under **STEP IV to help** you **apply** the **new method."**

– **"Sum up** the **improvements** on your job."

TIME TABLE

Ask group members to follow the demonstration with the Job Methods instruction card before them

- **"Check** to be sure **each part of every step** has been considered."

- "Make **notes for constructive comments and** for **questions** *after* demonstration is finished."

- "There will be **no discussion DURING demonstration**—only questions on points **not clear."**

Call on the first volunteer

- **Ask** the volunteer: "Is this **improvement new?** Have you made a **present and** a **proposed breakdown?"**

  - If **either** answer is **"No," call** on the **second volunteer.**

- **Have** the **volunteer follow** the **demonstration procedure** outlined above.

How to comment on each demonstration

- **Compliment** the **volunteer on** the **good points** that show proper application of the Job Methods Plan.

- Ask **members** if there are **questions about** the **demonstration** they want to ask or further improvements they want to suggest.

- **Discuss** the **application of each part of** the 4 **steps** and exactly how they helped the supervisor make his improvement.

- **Stress:**—"Was it **worked out with** the **operator(s)?"**
  —**"How was credit given** (or planned)?"

TIME TABLE

- **Be sure you don't take the attitude of an "EXPERT." You should ONLY LEAD THE DISCUSSION.**

- On **questions involving company policy,** the **supervisor** should be **referred to his own management.**

- **Sum up** the **results of** the **improvements** in terms of increased production and machine use, savings in materials, better quality, safety, and housekeeping, etc. (use blackboard).

- **Record each improvement on the Attendance Record** and the **Proposal Report.**

Stress the use of STEP I on each demonstration.

- The **correct** way to make a **break-down** should be **clearly and completely explained before proceeding** to the next demonstration.

- Show **how** easily a **break-down** can **PROPERLY** be **made** by **using** the **volunteer's job.**

- **Write** out **on** the **blackboard** entire **present breakdown** (or a substantial part).

- Repeat the **definition of** a **detail:** "Every single thing that is done, every Inspection, every Delay."

- Stress **advantage** of plenty **of notes.**

- Emphasize the **value of** the **break-down.**

- "We **cannot investigate** all **details properly before listing** them **carefully.**"

- "We **must have all** the **facts.**"

- "The **success** of the improvement **depends on information obtained from** questioning a **complete breakdown.**"

TIME TABLE

Call on the second volunteer (if time permits)

- Use **same procedure as** with **first volunteer.**

- Be sure to **sum up carefully all improvements** in the demonstration (use blackboard).

- Record the improvement on the Attendance Record and the Proposal Report.

- **Continue to stress** importance of the **break-down.**

- **List** all **details on** the **board to** further **emphasize** the **importance of** the **break-down.**

- Use both **present and proposed** methods if necessary.

-Prove that a **break-down** of the Present Method **listing all details and facts makes it easy to "question"** thoroughly **and** to **"develop"** completely.

1 hr. 35 min. to here

Allow 10 min.

4. EXPLAIN USE OF THE PROPOSAL SHEET

Explain importance of writing up proposed new method

- "Too **many** proposed **improvements 'die' before** they are **put into practice or** put down **on paper."**

- "The **write-up is** a good **device for SELLING** the improvement **to** the **boss."**

- "It is very **useful in getting final approval** on Safety, Quality, Quantity, Cost, etc."

- "Practical **improvements** can be **passed on and used by others** in the Plant."

How to write up a proposal

- **HAND OUT SAMPLE PROPOSAL.**

- **Read** the **proposal and discuss** it in detail.

TIME TABLE

– "It is **important to list** the **improved uses** of Manpower, Machines and Material **at** the **beginning of** the **proposal."**

– "Improvements in **quality, design, safety, housekeeping,** etc., should **also** be included."

– "We must tell **exactly how** the **improvement** can be **made and what** will be **accomplished."**

– Stress the **importance of heading, signature, samples, sketches,** and **job break-down** sheets.

– "The names of **those who** should **receive credit** should **also** be **shown."**

– **Explain how** the **check list** of **questions on** the back of **proposal** sheet should be **used.**

– "The **questions** will help us **check** the **completeness** of our improvement."

– "They may **give** us some **new ideas."**

– "At least, they will **stimulate** our **thinking** improving the job."

"Each member will write up a proposal"

– "It should be written-up similar to the **sample."**

HAND OUT PROPOSAL SHEETS

– "Those **who put on** their **demonstrations** are now ready to **write up proposals** in final form."

– "These **members** will **read** their **proposals** to the Group **during Session III."**

1 hr. 45 min. to here

– **"Others** will **wait until after** the **demonstrations** to write up and present their proposals."

TIME TABLE Allow 10 min.

5. ASSIGN DEMONSTRATIONS FOR SESSION III

Ask for 4 volunteers for Session III demonstrations

- "Any **short job** in your department. **Not a secret** product or process."
- "Tackle the **first job you come to** when you walk into your department."
- **"All demonstrations** must be made by applying **this Job Methods plan."**
- "We **don't want** a review of **improvements** that have been **already** put **in effect."**
- "Each Volunteer will **make** a **job break-down** of the job he has selected—**question** every detail—**develop** a New Method—**and** work out a **plan for applying** the New Method."
- "Also make a **break-down** of the **new method."**
- "If you **can't improve** the **first** job you tackle; **break down, question,** and **develop another** one."
- Ask **each** Volunteer to **name** the **job** on which he will apply the 4-Step Plan.
- **Have volunteers tell** you **what they are going to do** to follow the 4-Step Plan.
- **Check** with the others in the **group to be sure all** are **working on** a **job and** all are **using** the **4-step plan.**
- "Demonstrations are scheduled for **20 minutes for both present and proposed** methods."
- Invite **any who want help** to **stay** after Session.

1 hour 55 min. to here

TIME TABLE
Allow 5 min.

6. REVIEW AND CLOSING

Review

- Stress the value of **learning** the **purpose,** the 4 **steps and** the **items** under each step.

- **Review** the use of the **proposal sheet and** the **check list** of **questions.**

Closing the session

- **Sell** the idea that **"learning by doing"** is the **only way to gain confidence.**

- "Job Methods **improvement is** a regular **part of** the supervisor's **daily job."**

- Point out the **personal advantage to** supervisors who **make good improvements regularly.**

- Stress the value of having their **proposals carefully worked out** with everybody concerned **before turning them in** for final approval.

- **Close promptly** with the reminder that Session III will be held on

_____ from _____ to _____
(Day) (Hour) (Hour)

End of 2d hr.

- Collect **name cards.** Record attendance.

BEFORE YOU BEGIN SESSION III

BE SURE YOU HAVE THESE MATERIALS

Extra JM Instruction Cards
Extra Blank Break-down Sheets
Extra Proposal Sheets
Proposal Reports
Attendance Record

BE AT MEETING ROOM 15 MINUTES BEFORE SESSION IS DUE TO OPEN

Arrange chairs. Look after ventilation, blackboard, chalk, eraser, etc.

REMEMBER

The emphasis in Session III is on STEP II: Question every detail.

WORK FROM THE OUTLINE—DON'T TRUST TO MEMORY

OUTLINE FOR SESSION III

TIME TABLE
Allow 5 min.

1. OPENING THE SESSION

Opening remarks

- Hand out **name cards.**
- **Express** your **appreciation of** the **interest** shown by the group at the last Session.
- **Compliment those who presented** constructive **improvements** during Session II.

5 min. to here

Allow 5 min.

2. REVIEW SESSIONS I AND II

Review the purpose, the 4 steps, and the proposal sheet

- **Stress** the importance of **using** the Job Methods **plan to make** the **best use of all** the Manpower, Materials, and Machines now **available.**
- **Have** the **group** tell you the **4 steps.** Have them **put** their **cards in** their **pockets** during the review.
- **Review** the use of **EACH STEP** as you put it on the board.

TIME TABLE

Blackboard

STEP I.—BREAK DOWN The Job
List ALL details

STEP II QUESTION	STEP III DEVELOP
Why? / **What?**	→ **Eliminate!**
Where?	→ **Combine!**
When?	→ **Rearrange!**
Who?	→ **Rearrange!**
How?	→ **Simplify!**

STEP IV.—APPLY The New Method
Sell—Approvals—Use—Credit

10 min. to here

– **Review use** and importance **of proposal sheet.**

Allow 1 hr. 40 min.

3. PRACTICE DEMONSTRATIONS—FOUR JOBS

Stress the value of demonstrations

– **"Learning by doing gives us confidence."**

– "We see the **practical application** of these principles **to our jobs."**

– **"Everyone** of us **has** the same **opportunity** to **show his ability** in making improvements."

Ask each volunteer to follow this procedure

– **Brief the following 8 points on the blackboard:** *See p. 77*

– **"Describe** briefly the **job** you have 'tackled' and explain samples and sketches you will use."

– "Demonstrate the **present method."**

TIME TABLE

– **"Show present** method **break-down and read details."**

– "Explain **what information** and leads you **obtained from** the **answers to** the **questions in STEP II."**

– "Explain **how** this **information helped** you to **eliminate, combine, rearrange and simplify** details **while developing** the **new method** in **STEP III."**

– "Demonstrate the **proposed method."**

– "Explain **how you used,** or will use, the items under **STEP IV to help** you **apply** the **new method."**

– **"Sum up** the **improvements** on your job."

Ask group members to follow the demonstration with the Job Methods instruction card before them

– **"Check** to be sure **each part of every step** has been considered."

– "Make **notes for constructive comments and questions to use AFTER** demonstration is finished."

– "There will be **no discussion** during **demonstration**—only questions on points not clear."

Call on the first volunteer

– **Ask** the volunteer: "Is this **idea new? Have** you made a **present and proposed break-down?"**

– If **either** answer is **"No," call** on the **next volunteer.**

– **Have** the **volunteer follow** the **demonstration procedure** outlined above.

TIME TABLE

How to comment on each demonstration

- **Compliment** the **volunteer on** the **good points** that show application of the Jol Methods Plan.

- Ask **members** if there are **questions about** the **demonstration** they want to ask or further improvements they want to suggest.

- **Discuss** the **application of each part of** the **4 steps** and exactly how they helped the supervisor make his improvement.

- **Stress:**–"Was it **worked out with** the **operator(s)?"**
  –**"How was credit given** (or planned)?"

- **Be sure you do not assume the attitude of an "expert." You should ONLY LEAD the discussion.**

- On **questions involving company policy,** the **supervisor** should be **referred to** the **management.**

- **Sum up** the **results of** the **improvements** in terms of increased production and machine use—savings in materials—better quality, safety, and housekeeping—etc. (use blackboard)

- **Record each improvement on** the **Attendance Record and** on the **Proposal Report.**

Stress the use of STEP II during this practice period

- **Stress** the **importance of** a **questioning attitude** throughout this Session.

- Get the **group to ask Why? What? Where? When? Who? How? Questions** during the discussion **after** each **demonstration.**

- Review the **relation** of **Step II** to **Step III.**

TIME TABLE

– Stress the **importance** of **asking** each **bracket** of **questions** for **each** detail.

– Emphasize the **need** for **holding back "flash ideas"** and noting them on the breakdown sheets.

– "The **best improvements** are **developed** only after **careful** and **complete questioning.**"

– Explain **why** it is **essential to complete STEP II before starting STEP III.**

– Stress the **importance of questioning** all **factors in Item 2** of STEP II and **how these** may **affect** the **details** of the job.

Demonstrations No. 2, No. 3, No. 4 (same as No. 1)

– **Sum up** the **improvements** on each job. (use blackboard)

– **Record each improvement on Attendance Record** and on **Proposal Report.**

1 hr. 50 min. to here

"The four members who put on demonstrations will write up their proposals and read them at Session IV."

Allow 5 min.

4. PROPOSALS ON SESSION II DEMONSTRATIONS

Ask members who put on demonstrations during Session II to read their written proposals.

– Ask for **comments and suggestions.**

– **Recommend** that the **proposals, break-down sheets,** sketches, samples **be submitted at once for approval and action.**

1 hr. 55 min. to here

– **Record results of improvements on Proposal Report.**

TIME TABLE
Allow 5 min.

5. ASSIGN DEMONSTRATIONS FOR SESSION IV —AND CLOSE

Ask for volunteers for Session IV demonstrations

- "Any **short job.** **Not a secret** product or process."
- **"Must be NEW improvements."**
- **"Follow** the **4-step plan."**
- "Make a **break-down** of the **proposed method."**
- **Check** the **jobs** with volunteers.
- Invite **any who want help** to **stay** after Session.

Closing the session

- Point out the high points of each demonstration and **compliment** the **group on** their **progress.**
- Remind the group that **similar improvements will** go far to **help win the war.**
- **Emphasize** the **urgent need for every improvement.**
- **Stress** the value of **taking time to** develop New Methods that **save time, machines** and **material.**
- **Close promptly** with a reminder about Session IV

on ..... (Day) from ..... (Hour) to ..... (Hour)

- Collect **name cards.** Record attendance.

End of 2d hr.

BEFORE YOU BEGIN SESSION IV

BE SURE YOU HAVE THESE MATERIALS

Extra JM Instruction Cards
Extra Blank Break-down Sheets
Extra Proposal Sheets
Proposal Reports
Attendance Record

BE AT MEETING ROOM 15 MINUTES BEFORE SESSION IS DUE TO OPEN

Make an appointment with the Plant Representative to see him on the day Session V will be held and 45 minutes before it opens. The object is to review with him the Methods Improvements presented at Sessions II, III, and IV which you have listed on your PROPOSAL REPORT.

Between the close of Session IV and the time of your appointment, prepare the PROPOSAL REPORT you will discuss with the Plant Representative.

In the Meeting Room arrange chairs, look after ventilation, blackboard, crayon, eraser, etc.

REMEMBER

The emphasis in Session IV is on STEP III: Develop the new method with others.

WORK FROM THE OUTLINE—DON'T TRUST TO MEMORY

OUTLINE FOR SESSION IV

TIME TABLE
Allow 5 min.

1. OPENING THE SESSION

Opening remarks

- Hand out **name cards.**
- **Express** your **appreciation of** the **interest and enthusiasm** shown by the group.
- **Compliment those who presented** constructive **improvements** at Session III.
- **Stress** the **need for** developing **improvements** and for getting action so they will be put into effect.
- **Ask if** the **improvements** proposed during Sessions II and III **have been put into effect.**

NOTE.—**This will give you something concrete to talk over with the plant representative.**

5 min. to here

TIME TABLE
Allow 5 min.

2. REVIEW PREVIOUS SESSIONS

Review purpose and 4 steps of the Job Methods plan

– **Ask** a **member to state** the **purpose without** looking at the **instruction card.**

– Ask the **group** to **develop** the **4 steps without** using the **card.**

Blackboard

> **Step I.—BREAK DOWN** The Job
>
> **Step II.—QUESTION** Every Detail
>
> **Step III.—DEVELOP** The New Method
>
> **Step IV.—APPLY** The New Method

10 min. to here

– **Point out** some outstanding **applications of** the **4 steps in** Session III **demonstrations.**

Allow 1 hr. 35 min.

3. PRACTICE DEMONSTRATIONS—FOUR JOBS

Point out the advantage to all members of applying the Job Methods principles to all jobs

– "The **demonstrations** at Sessions II and III **illustrated** the **importance of learning by doing."**

Ask each volunteer to follow this procedure

– **Brief the following 8 points on the blackboard:** *See p. 77*

– **"Describe** briefly the **job** you have 'tackled' and explain samples and sketches you will use."

– "Demonstrate the **present method."**

– **"Show present** method **break-down and read details."**

TIME TABLE

– "Explain **what information** and leads you **obtained from** the **answers** to the **questions in STEP II.**"

– "Explain **how** this **information helped** you to **eliminate, combine, rearrange, and simplify** details **while developing** the **new method** in **STEP III.**"

– "Demonstrate the **proposed method.**"

– "Explain **how you used** or will use the items under **STEP IV to help** you **apply** the **new method.**"

– **"Sum up** the **improvements** on your job."

Ask group members to follow the demonstration with the Job Methods instruction card before them

– **"Check** to be sure that **each part of every step** has been considered."

– "Make **notes for constructive comments and questions** *after* demonstration is finished."

– "There will be **no discussion DURING demonstration**—only questions on points not clear."

Call on the first volunteer

– **Ask** the volunteer: "Is this **idea new?** Have you made a **present and a proposed break-down?"**

– If **either** answer is **"NO"—call** on the **next volunteer.**

– **Have** the **volunteer follow** the **demonstration procedure** outlined above.

How to comment on each demonstration

– **Compliment** the **volunteer on** the **good points** that show application of the Job Methods Plan.

TIME TABLE

– Ask **members** if there are **questions about** the **demonstration** they want to ask or further improvements they want to suggest.

– **Discuss** the **application of each part of** the **4 steps** and exactly how they helped the supervisor make his improvement.

– **Stress:** –"Was it **worked out with** the **operator(s)?"**
–**"How was credit given** (or planned)?"

– **Be sure you do not assume the attitude of an "expert." You should ONLY LEAD the discussion.**

– On **questions involving company policy,** the **supervisor** should be **referred to** the **management.**

– **Sum up** the **results of** the **improvements** in terms of—increased production and machine use—savings in materials—better quality, safety and housekeeping—etc. (use the blackboard)

– **Record each improvement on** the **Attendance Record** and on the **Proposal Report.**

Stress the use of STEP III during this practice period

– **Show again** the **relation of STEP II to STEP III.**

Blackboard

STEP II **QUESTION**	STEP III **DEVELOP**
Why? What?	→ **Eliminate!**
Where? When? Who?	→ **Combine!** → **Rearrange!**
How?	→ **Simplify!**

TIME TABLE

– **"Eliminating all unnecessary** details **eliminates waste.** This will **save manpower, machines,** and **materials** that are badly needed."

– **"Combining** and **rearranging** details **reduces handling and backtracking."**

– **"Simplifying** all **necessary details** by applying the principles on the card **makes** the **work easier** and **safer** for the operator."

– "Thus, we can produce **greater quantities** of **quality products** in **less time by** making the **best** possible **use of** the **manpower, machines, and materials available."**

Demonstrations No. 2, No. 3, No. 4 (same as No. 1)

– **"The four members who put on demonstrations** will write up their proposals and submit them at Session V."

1 hr. 45 min. to here

– **"Those who put on their demonstrations at Session V will bring in their written proposals and revise them (if necessary) during the discussion periods."**

Allow 10 min.

4. PROPOSALS ON SESSION III DEMONSTRATIONS

Ask members who put on demonstrations at Session III to read their written proposals to the group

– Ask for **comments and suggestions.**

– **Recommend** that the **proposals, break-down sheets,** sketches, samples, etc. **be submitted at once** for **approval and ACTION.**

– **Remind** the **group** it is important **to give credit** where credit is due.

TIME TABLE

– **Stress** the great importance of **continuing** to **search for better ways.**

1 hr. 55 min. to here

– **Record** the **results of improvements on** the **Proposal Report.**

Allow 5 min.

5. ASSIGN DEMONSTRATIONS FOR SESSION V —AND CLOSE

Ask for remaining volunteers for Session V demonstrations.

– "Any **short job. Not** a **secret** product or process."

– **"Must be NEW improvements."**

– **"Follow** the **4-step plan."**

– "Make a **break-down** of the **proposed** method."

– **Check** the **types of jobs** with volunteers.

– Invite **any who want help** to **stay** after Session.

Closing the session

– Review the outstanding **improvements in** the **demonstration jobs and compliment** the **group on** their **progress.**

– Point out the **personal satisfaction and** the **advantages to** the **supervisor who increases production** by improving Job Methods.

– **Close promptly** with a reminder about Session V

on ..... (Day) from ..... (Hour) to ..... (Hour).

End of 2d hr.

– Collect **name cards.** Record attendance.

BEFORE YOU BEGIN SESSION V

BE SURE YOU HAVE THESE MATERIALS

Extra JM Instruction Cards
Extra Blank Break-down Sheets
Extra Proposal Sheets
Proposal Reports
Attendance Record

BE AT PLANT 45 MINUTES BEFORE SESSION IS DUE TO OPEN

See the Plant Representative and review with him the PROPOSAL REPORT on the Demonstrations made by members of the Group during Sessions II, III, and IV.

Tell the Plant Representative that in closing Session V you will ask each member of the Group to PLEDGE he will BREAK DOWN and QUESTION at least ONE JOB EVERY WEEK, and to PLEDGE he will DEVELOP and APPLY as many IMPROVEMENTS as possible on these jobs according to the Job Methods Plan.

In this discussion strive to further develop the Plant Representative's interest so he will see that his Company's management gives constructive and continuing ENCOURAGEMENT to the Job Methods Plan and to the supervisors who have participated in it.

BE AT MEETING ROOM 15 MINUTES BEFORE SESSION IS DUE TO OPEN

Arrange chairs. Look after ventilation, blackboard, chalk, eraser, etc.

REMEMBER

The emphasis in Session V is on STEP IV: Apply the new method.

WORK FROM THE OUTLINE—DON'T TRUST TO MEMORY

WITHIN TWO DAYS AFTER SESSION V

Make it a point to complete the ATTENDANCE RECORD and your PROPOSAL REPORT ON ALL DEMONSTRATIONS made by the group. Submit the ORIGINAL to the Plant Representative and one copy to the TWI DISTRICT OFFICE; keep a copy for yourself. See that the TWI DISTRICT OFFICE receives the Attendance Record PROMPTLY.

TIME TABLE
Allow 5 min.

OUTLINE FOR SESSION V

1. OPENING THE SESSION

Opening remarks

- Hand out **name cards.**

- **Express** your **appreciation of** the **interest** the Group has shown during the four sessions.

- **Compliment those who presented** constructive **improvements at** Session IV.

5 min. to here

- **Cite** one or two **recent improvements** which are **the result of applying the** Job Methods **plan.**

Allow 5 min.

2. REVIEW PREVIOUS SESSIONS

Review purpose and 4 steps of the Job Methods plan

- **Ask the group to give** the **4 steps and** state **purpose —without** looking at **instruction card.**

- **Review use of steps.**

Blackboard

Step I.—BREAK DOWN The Job
Step II.—QUESTION Every Detail
Step III.—DEVELOP The New Method
Step IV.—APPLY The New Method

10 min. to here

Allow 1 hr. 10 min.

3. PRACTICE DEMONSTRATIONS—TWO JOBS

Value of demonstrations

- "Learn to **present new method before group.**"

- "Develop **experience** by **observing how others improve** their job **methods.**"

TIME TABLE

– "Through group discussion **we benefit from** the **experience of others.**"

Ask each volunteer to follow this procedure *See p. 77*

– **Brief the following 8 points on the blackboard:**

– **"Describe** briefly the **job** you have 'tackled' and explain samples and sketches you will use."

– "Demonstrate the **present method.**"

– **"Show present** method **break-down and read details."**

– "Explain **what information** and leads you **obtained from** the **answers to** the **questions in STEP II."**

– "Explain **how** this **information helped** you to **eliminate, combine, rearrange, and simplify** details **while developing** the **new method** in **STEP III."**

– "Demonstrate the **proposed method."**

– "Explain **how you used** or will use the items under **STEP IV to help** you **apply** the **new method."**

– **"Sum up** the **improvements** on your job."

Ask group members to follow the demonstration with the Job Methods instruction card before them

– **"Check** to be sure that **each part of every step** has been considered."

– "Make **notes for comments and questions** to use **AFTER** demonstration is finished."

– "There will be **no discussion DURING demonstration,** only questions on points not clear."

TIME TABLE

Call on the first volunteer

- **Ask** the volunteer: "Is this **idea new?** Have you made a **present and** a **proposed break-down?"**

  - If the answer to **either** is **"No," call** on the **next volunteer.**

- **Have** the **volunteer follow** the **demonstration procedure** outlined above.

How to comment on each demonstration

- **Compliment** the **volunteer on** the **good points** that show application of the Job Methods Plan.

- Ask **members** if there are **questions about** the **demonstration** they want to ask or further improvements they want to suggest.

- **Discuss** the **application of each part of** the **four steps** and exactly how they helped the supervisor make his improvement.

- **Stress:**–"Was it **worked out with** the **operator(s)?"**
  –**"How was credit given** (or planned)?"

- **Be sure you do not assume the attitude of an "expert." You should ONLY LEAD the discussion.**

- On **questions involving company policy,** the **supervisor** should be **referred to** the **management.**

- **Sum up** the **results** of the **improvements** in terms of increased production and machine use, savings in materials, better quality, safety and housekeeping—etc. (use blackboard).

- **Record each improvement on** the **Attendance Record and** on the **Proposal Report.**

TIME TABLE

Stress the use of STEP IV during this practice period

- Discuss the **value of** a **complete, clear** and **concise write-up for** the **"Boss."**
  - Also **break-down sheets** (Present and Proposed), **sketches,** samples, **savings** in **manpower,** machines and materials.
- **Talk over** the various reasons why operators may need to be **sold** on the new method, even though it was **worked out** with one or more of them earlier (in Step III).
- Discuss effective ways for **selling** new methods to operators.
- "Securing **final approval from all** concerned is **necessary to** assure **proper authorization** for making changes in methods **and to avoid difficulties."**
- Stress the **importance of quick action** in putting the New Method to work.
  - "Constant **checking** is **necessary to make sure** the new **method remains in effect."**
  - **"Keep** on **searching for** a **better method."**
- **"Give** credit where credit is **due."**
  - **"Credit is** a **powerful incentive** to producing more and better ideas."
  - **"Credit** should be given to **every person who helped** make an improvement."
- **"Failure to give credit may stop all** other good **ideas** that might come from the Department or the Plant."
- "Proper **credit** is **indispensable to** the **success of** the Job Methods **plan."**

TIME TABLE

– **Ask the "Boss"** to give **credit** to **those who** have **helped** you.

Demonstration No. 2 (same as No. 1)

– **Sum up** the **improvements** on each job.

1 hr. 20 min. to here

– **Record each improvement on Attendance Record** and on **Proposal Report.**

Allow 20 min.

4. PROPOSALS ON SESSIONS IV AND V DEMONSTRATIONS

Ask members who put on demonstrations during sessions IV and V to read their completed proposals to the group

– Ask for **comments** and **suggestions.**

– **Recommend** that the **proposals, break-downs, etc.** be **submitted at once** for **approval and ACTION.**

1 hr. 40 min. to here

– **Record results of improvements on** the **Proposal Report.**

Allow 10 min.

5. REVIEW THE JOB INSTRUCTION PLAN

Stress the importance of instructing operators properly

– **"Failure to properly instruct** operators **may mean failure** of the **new method."**

– **"To be sure** the **new method** is done **exactly right, instruct** the worker **carefully**—following the *Job Instruction Plan."*

Ask members to tell you the four get-ready points of the Job Instruction plan

1.—"Have a **time table."**

2.—**"Break down** the Job—**List** the **principal steps and** the **key points."**

TIME TABLE

3.—"Have **everything ready.**"

4.—"Have the **work place** properly **arranged.**"

Ask members to give the 4 basic steps of the Job Instruction plan (**YOU** review sub-heads briefly).

- **"Step 1—Prepare** the **worker."**
- **"Step 2—Present** the **operation."**
- **"Step 3—Try out performance."**
- **"Step 4—Follow up."**
- " 'If the **worker hasn't learned,** the **instructor hasn't taught'** applies to **all jobs."**
- **"Be sure** this **plan** is **used every time** an **operator is instructed** in a New Method."

1 hr. 50 min. to here

Allow 10 min.

6. SUMMARY AND CLOSING APPEAL

Summarize the Job Methods plan

- **Review** the **purpose.**
  - **"Carrying out** this **purpose** will **help** you **personally, and** it will **help win the war."**
- **Review** the **four steps** completely.
  - Be sure every member has an **instruction card.**
  - Urge every member to **keep** the **instruction card** with him **and** to **use it every time** he begins **to improve** a Job **Method.**
  - "All the **principles** that are **needed to improve hundreds** of our **jobs** are **on** this **card."**

TIME TABLE

The group member's responsibility

- "Now that our five meetings are over and **each** of us has **demonstrated, 'it can be done,'** we have a **responsibility. It begins here** and now."

- "This **plan** is **only as good as we make it**—by applying it today, tomorrow, and every day to every job and keeping on applying it."

- **Ask** the **MEMBERS** of the group **TO PLEDGE** that they will **break down and question** at least **one job every week.**

  - **And to pledge** they will **develop and apply** as many **improvements** on **these jobs** as they can.

- Assure the group of **management's support, and pledge to give** proposals **prompt action.**

Closing appeal

- "Our **men and women** on the fighting front **are risking** their **lives to win this war** today, tomorrow, and every day of the week."

- "We all know by now that **improvements** in job methods **will** definitely **help** us **produce greater quantities of quality products in less time."**

- "I know you will **put** the **Job Methods plan to work** every time you can so you can do even more **for** the **war effort."**

- "And, I know that the **improvements** you make **will be** a **credit to you and** to the **company."**

- "Take time to **study every job. Encourage others** to take Job Methods so they can help."

TIME TABLE

– "It has been a real **pleasure to work with you.** I wish you the **best of success.**"

↓

End of 2d hr.

– Record the attendance.

REFERENCE

MATERIAL

The following pages were prepared to assist you in your capacity as Trainer to make a convincing presentation. These pointers were prepared after hundreds of ten-hour sessions had been closely observed to find the best way to get results.

In presenting this Job Methods program an otherwise convincing demonstration is often spoiled by a point that was improperly made because it appeared to be of minor importance. You will avoid this if you will study the pages that follow. Practice the demonstrations until you have mastered each step and successfully timed your explanation with each move you make.

To help you become thoroughly competent in making the demonstrations, the explanations accompanying each step are given in full in this Reference Material. A clear understanding of the points to be made is absolutely necessary to a successful demonstration. These points are covered in detail on the pages which follow. References to these explanations appear in the Sessions Outline in the right hand margin and are printed in italics.

In addition, there are suggestions for establishing an informal atmosphere to put the group at ease; also, suggestions for making clear where the Job Methods program fits in as one of a supervisor's five needs.

Illustrations, stories and examples of your own that show the practical application of the items presented are very desirable and should be used whenever appropriate. However, no item in the Sessions Outline is to be omitted or changed.

This does not mean that the paragraphs in quotation marks are always to be given to the group exactly word for word as given in the Sessions Outline. The Trainer may use his own words so long as the exact meaning is preserved at all times.

"ESTABLISH AN INFORMAL ATMOSPHERE"

The personal impression you make during the first 5 or 10 minutes is a big factor. If favorable, it makes the work easier. If unfavorable, you must make considerable effort later to overcome this impression.

The manner of your delivery and the tone of your voice should show clearly that you are in earnest, that you feel strongly about the importance of the work, and that you fully respect the present knowledge and experience of the group. Here are some ideas that will help you to open the session successfully.

1. Establish your own industrial background by briefly relating your own industrial connection. If this is done while writing or printing your name on the blackboard, it will set a pattern each one present will naturally follow.
   - Have Group members state their own connections briefly. This is done not so much for the information they give but to put them at ease. It is something they can do correctly and easily. Allow about 15 seconds for each member.
   - Have members print their names and departments (and company's name, if several companies are represented) on a card which is placed before them.
   - You can say that your difficulty in remembering names makes this cooperation on their part a help in conducting the sessions.
2. If plant regulations permit smoking, you may light a pipe or a cigarette and thus encourage informality. But keep in mind that a pipe or a cigarette can be a nuisance to you while trying to talk or write.
   - When you have encouraged informality in this manner, put the pipe or cigarette aside until later in the session when it will not interfere with conducting the meeting.
3. Your only purpose is to help them to make better use of what they now know. They were selected for their skill and experience. They probably know more about that part of their job than anyone else in their Department.
4. At all times avoid the atmosphere of the classroom. The members of your group are mature persons and they resent any suggestion of the "school teacher and school boy" relationship. Make it a point to avoid using terms such as "class," "student," "classroom," "teacher." Instead, use terms such as these: "group," "worker or learner," "get-together," "meeting," "instructor," etc. Keep before the group the fact that TRAINING is a normal part of a supervisor's job—it isn't something "special" or "apart." Think and speak of a meeting devoted to training just as you would of any other important meeting that has to do with PRODUCTION.
5. Tell the group they will discuss shop problems, as a group of men in the shop, and there's nothing technical.
   - There will be a chance to actually try out the plan and practices discussed.
6. Tell the group that not so long ago you were "on their side of the table," when you took this training yourself. You know it is not too difficult to "get on to" and you have tried it out in practice. It works. Being able to "pass it along" is a satisfaction to you. It's a real privilege to be associated with something that can be of so much help to the war effort.

THE FIVE NEEDS OF A SUPERVISOR

On the first page of the Outline for Session I, there is a paragraph which reads as follows: "Cover the **'five needs'** of **every supervisor.**" This appears near the bottom of page 5. The Trainer's job at this point is to explain in a few words how Skill in Improving Job Methods is one of the supervisor's five most necessary qualifications.

Before you attempt to explain the five needs at this point, study the FIVE NEEDS STORY on page 2. Then, consider the following brief presentation given below as one way of telling this story clearly and in the shortest time.

Make it a point to take no more than three minutes at the outside to tell this story. Otherwise, your time table all through Session I will be upset.

Write the five needs on the blackboard as you tell the story.

"Let's look at a supervisor's job—and the knowledge and skill he must have to manage it successfully."

"First, he must have Knowledge of the Work." (Tell briefly what this covers and write on the blackboard: '1—Knowledge of Work')

"Second, he must have Knowledge of his Responsibilities." (Tell briefly what this covers and write on the blackboard: '2—Knowledge of Responsibilities')

"These two needs vary with each company and plant, and the necessary knowledge to fill these needs must be provided by the plant organization itself. Often knowledge that is necessary in one plant is of no use at all in another plant."

"A third need of every supervisor is Skill in Instructing." (Tell briefly what this covers and write on the blackboard: '3—Skill in Instructing')

"The fourth need is Skill in Improving Methods." (Tell briefly what this covers and write on the blackboard: '4—Skill in Improving Methods')

"And the fifth is Skill in Leading People." (Tell briefly what this covers and write on the blackboard: '5—Skill in Leading')

"The Skill of Improving Methods is the part of the supervisor's job that we're going to tackle in these Sessions. Training Within Industry gives the same kind of help on developing Skill in Instructing and Skill in Leading People."

"Practice and experience in using these three skills helps the supervisor to recognize and solve his daily problems. The supervisor who 'gets these three skills under his belt' can use them anywhere. They are his for all time."

THE DEMONSTRATION JOB

"The principles of the Job Methods plan can be best demonstrated by showing how they were applied to an actual job. The job we will use for demonstration is from another war plant—not this plant. Watch this demonstration job in terms of any job in your own department."

"While we have tried to pick a typical job as a sample for demonstration it was impossible to select one that would be exactly like those performed in your shop or department. The sample job we picked out was chosen simply to show how the Plan definitely improves Job Methods."

"First we show you the PRESENT METHOD of doing this job and then, the PROPOSED METHOD. The same kinds of improvements that were made on this job can be made on any job which includes ONE or MORE of the three basic types of work."

JOB METHODS PLAN APPLIES TO ALL JOBS

Ask several members of the group to name the kinds of work done in their departments. From their answers, develop the fact that ALL of the operations on ANY production job can be classified under ONE or MORE of three basic types of work: (1) Material Handling (2) Machine Work (3) Hand Work.

(NOTE.—Thinking, Inspection, and other "nonproductive" operations are parts of all three types of work)

Write the three types of work on the blackboard.

"The demonstration job includes: (1) Material Handling (2) Machine Work and (3) Hand Work. These are the features to be compared to your jobs—not this product, nor this operation. Make it a point to watch these three basic types of work during the demonstration; observe them in terms of any job in your own department."

Emphasize that these three types of work are included in the demonstration job and that these three types of work are comparable to their jobs. IT IS VERY NECESSARY TO MAKE THIS COMPARISON CLEAR. In this way you will overcome the objection that the Plan does not apply to their jobs because "their work is different." It reduces any job of any kind to the common denominator of ONE or MORE of the three general types of work.

MATERIAL AND EQUIPMENT

"The sample Job selected for demonstration is the making and packing of Radio Shields. (SHOW SAMPLE RADIO SHIELD) Each Shield consists of a 5-inch-by-8-inch Copper Sheet riveted to a similar Brass sheet, at four points. Each completed Shield has the word 'TOP' stamped in the lower right-hand corner of the Brass Sheet. The two sheets are each about fifteen one-thousandths or one sixty-fourth of an inch thick. (SHOW SAMPLE SHEETS) You will notice we are using cardboard in place of Copper and Brass because these metals are scarce and substitutes serve our purpose for the demonstration."

1. "The operations performed on the sheets are Inspecting, Assembling, Riveting, Stamping, and Packing."

2. "The operations are performed by FOUR OPERATORS, each working at his own bench."

3. "On each bench there is a hand-operated riveting machine represented by this paper stapler. (SHOW THE STAPLER)

4. The substitution will serve our purpose. It is impossible to carry riveting machines from group to group, and they are needed for war production."

5. "There is a rubber stamp and a stamp pad beside the riveting machine for the purpose of stamping each Shield." (SHOW THE STAMP AND PAD)

THE PRESENT METHOD

"We will now demonstrate the PRESENT METHOD of making and packing the Shields."

"There are four sets of machines and equipment, one for each of the four operators. We will follow the job of completing the Shields as performed by one of the operators whom we will call 'Jim Jones.' The same job was being done by the three other men. Another man, a Material Handler, worked with these operators. He serviced other operators on the same floor as well."

"The Copper and Brass sheets were delivered in Tote Boxes by the Material Handler at a point six feet away from the work bench. He brought the Shields from the Punching and Stamping Department. Two scrap bins, one for Copper and one for Brass, were located at the right of the bench. The Tote Box for Finished Shields was on the left side of the bench." (SHOW POSITIONS OF BOXES AND BINS)

Picking-up, Laying Out and Inspecting

"From his bench Jones walked six feet to the Supply Box containing Copper Sheets. He picked up 15 to 20 Copper Sheets although he was only going to lay out 12 on the bench. He did not pick up the exact number of sheets because they were thin and it was hard to pick up the right number. Also, there were usually among them sheets that had been scratched or dented and they could not be used. With the Copper Sheets in one hand, he walked six feet back to the bench."

"Jones then laid out 12 sheets on the bench, in three rows of four to a row. As he laid them out, he inspected each one for scratches and dents. Only one side of the sheet had to be inspected because a scratch or dent bad enough to spoil its quality shows through. The sheets he rejected, he dropped into the Copper Scrap bin. To do this he had to take two steps toward the bin." (SHOW ONE OR TWO DAMAGED SHEETS AND PUT THEM IN THE BIN)

"Since a few sheets were usually left over, he walked back to the Supply Box and replaced the extra sheets. Then he walked three feet from the Copper Supply Box to the Brass Supply Box and picked up 15 to 20 Brass Sheets. Again, he did not pick up exactly 12 because the sheets were thin, and more than likely he would have had to scrap some of them."

"Jones then returned to the bench and inspected and laid out 12 Brass Sheets. He put one on top of each Copper Sheet. This had to be done carefully, since they scratched easily. Defective sheets were thrown in the Brass Scrap Bin. As before, he had to take two steps in order to throw the defective sheets into the proper bin. (REJECT ONE OR TWO) If he had any Brass sheets left—usually he did—he had to make another trip to the Supply Box, six feet away, in order to return them and walk six feet back to the bench again."

"Jones then stacked the 12 sets of sheets crosswise (criss-cross) near the right side of the riveter and he sat down in front of it."

Riveting and Completing the Shield

"He then picked up a set of sheets with his right hand, and lined them up so the holes matched and the edges of the sheets were even. The line-up tolerance was five one-thousandths of an inch. Lining up to this close tolerance called for a good deal of experience. When the sheets were lined up, he positioned them in the riveter, riveted the top left-hand corner, moved the sheets, riveted the other top corner, and removed them from the riveter. Then he reversed the sheets and riveted the bottom corners."

"He removed the Shield, reversed it, and placed it on the bench. He stamped the word 'TOP' on the right-hand corner of the Brass Sheet, inking the stamp on the stamp pad. Then he set the completed Shield aside on the bench." (RIVET AND STAMP AT LEAST 3 SHIELDS)

"Having laid out 12 sets of sheets, he repeated the process described above until all 12 sets were riveted, stamped, and piled on the bench. Then he carried the 12 Shields to the Tote Box for Finished Shields, placed them in the box and returned to the bench."

Weighing and Packing

"He repeated this process until the Tote Box for Finished Shields was full. Then, he picked it up and carried it to the scale and weighed it. The scale, used by the entire department, was 50 feet away from his bench. The Tote Box weighed about 75 pounds, so a strong man was required. (PICK UP THE BASKET OR CHAIR YOU ARE USING AS A TOTE BOX AND CARRY IT TO THE REAR OF THE CONFERENCE ROOM. MAKE IT LOOK REALISTIC! USE PROPER LIFTING PROCEDURE) Jones made out a weight ticket and placed it in the Tote Box. After placing the box beside the scale, he returned to his bench and started on another box of Shields."

"When two or three Tote Boxes of Finished Shields had accumulated near the scale, the Material Handler took them on a two-wheel hand truck to the Packing Department, a distance of 100 feet. In the Packing Department, the first thing the Packer did was to remove the Shields from the Tote Box, check-inspecting them as he went along. Then the Packer counted out 200 of them and packed them in a wooden case supplied by the Material Handler. The Packer nailed the cover on the case, weighed it, and stenciled the delivery address on the outside. He marked the weight on the delivery slip and set the case aside for shipment. The Tote Boxes he had emptied were returned by the Material Handler to a point close by the riveting operator's work bench."

DISTRIBUTE PRESENT METHOD LAYOUT and review the FLOW of MATERIAL from the supply boxes to the shipping platform. Point out the NUMEROUS HANDLINGS.

"Can you identify the Material Handling, the Machine Work, and the Hand Work that were performed on this job?" (REFER TO MATERIAL HANDLING, MACHINE WORK, AND HAND WORK ON THE BLACKBOARD AND HAVE VOLUNTEERS IN THE GROUP IDENTIFY EACH TYPE OF WORK)

EQUIPMENT FOR THE PROPOSED METHOD

"Now, let's look at the PROPOSED METHOD for doing the same job. This improved method was developed with the help of the operator, Jim Jones, and put to work by the Foreman of the department by applying the principles of the Job Methods Plan. For convenience, we will call the Foreman, Bill Brown."

"First, let's look at the improvement that was made. Then, we will discuss HOW Bill Brown applied this Job Methods Plan and HOW each of us can use the Plan to improve any job in our department or company."

"Watch these improvements closely. Not only for the way in which they apply to this sample job but how the principles which made the improvements possible may be applied to ANY job in our department which includes Material Handling, or Machine Work, or Hand Work."

"Here are the results: The Tote Boxes of Copper and Brass Sheets were placed directly on the bench by the Material Handler. It made no difference to him whether he placed them on the bench or six feet away. No extra work was required." (PLACE PILES OF SHEETS ON THE TABLE)

Riveting Machines, Fixtures and Jigs

"Two riveting machines were placed side by side on the bench. It was not necessary to buy new machines because the second machine was taken from one of the other benches. Then, a simple fixture was made to fit around the two riveters. The riveters were spaced very carefully—in exact locations so that rivets would go through two holes in the sheets at the same time. In addition, the fixture was equipped with two guides that fit the sheets. When the operator slips the sheets between the guides, the sheets are lined up automatically before riveting. This lining-up is within the tolerance limits of five one-thousandths of an inch." (SHOW GROUP HOW THE RIVETERS FIT INTO THE FIXTURE, AND HOW THE SHEETS FIT BETWEEN THE GUIDES, AND ARE AUTOMATICALLY LINED UP)

"Two jigs were made to hold the sheets. (SHOW JIGS TO GROUP) One of them is for the Copper Sheets, the other for the Brass Sheets. One jig was placed at the right side of the fixture and the other at the left. An arm was placed on each jig at an angle of 45 degrees so the sheets are held in position where they can be easily picked up by the operator. This angle arm was suggested by Jim Jones."

"The Scrap Bins were placed under the work bench and two slots were cut in the bench so damaged sheets could be dropped into the bins. The slots are directly in front of the jigs. Cutting the slots was also suggested by Jim Jones, the operator."

New Arrangements for Packing and Shipping

"Shipping cases were placed beside the operator so he could put the completed shields directly into the shipping case. The Material Handler brings in empty cases and takes away the full ones."

"Since there were no longer any heavy Tote Boxes to be carried from one place to another and the sheets were lined up automatically, it became possible for operators with less experience and less physical strength to do the work satisfactorily. The result was that four strong, well-experienced operators were UPGRADED to more important work where this experience and these physical qualifications could be used to better advantage. Jim Jones was pleased that his contribution had helped improve the job."

THE PROPOSED METHOD

"Doing the job by the IMPROVED METHOD, the first thing the operator does is to put a pile of Copper Sheets in the right-hand jig and a pile of Brass Sheets in the left-hand jig."

"He 'fans' them out as he puts them into the jigs so they can be picked up one at a time very easily." (DEMONSTRATE BY FILLING THE JIGS)

"With his right hand, the operator picks up one Copper Sheet and with his left hand he picks up one Brass Sheet. He inspects both sheets, dropping any defective ones down the proper slot. And, he puts the good sheets together in pairs with the Brass Sheet on top. Then he puts each pair of sheets in the fixture. It is no longer necessary to line them up so the holes and edges will be in the same position. The guides on the fixture do this automatically."

The Simplified Riveting Process

"He rivets the two bottom corners at the same time since he has two riveting units and can operate them with two hands at the same time. Then he removes the sheets, reverses them, and places them in the fixture guides to rivet the two top corners. He does the bottom first,

so the square corners will be flush against the guides on the fixture. Thus, he does not have to watch to see that the cut-away corners meet because, when the bottom has been riveted, the sheets are already very tightly pressed together and the cut-off corners meet exactly. As soon as it is riveted, he places the finished Shield in front of the fixture." (RIVET AT LEAST 3 SHIELDS)

"He repeats the process 19 times until he has completed 20 Shields. He does not have to count or weigh them because the height of the fixture had been so designed that when 20 Shields are stacked in front of it, the top of the pile is exactly flush with the top surface of the fixture. The Shields are sold and delivered by count, not by weight."

"When he has finished 20 Shields, he places them in the shipping case at his right. As soon as one case has been filled with 200 Shields, he sets an empty case on the one he has just filled. When four or five cases are full, the Material Handler delivers the cases that are full to the Packing Department. There, the Shields are spot-check inspected by the Packer who nails on the cover, weighs the case, puts the weight on the delivery slip, and sets the case aside for shipment."

DISTRIBUTE PROPOSED METHOD LAYOUT. Point out the FLOW OF MATERIALS AND COMPARE WITH PRESENT METHOD LAYOUT.

"WHY THE TOP STAMP WAS UNNECESSARY"

"The stamp and stamp pad used in the PRESENT METHOD to put the word TOP on each completed Shield are not used under the PROPOSED METHOD. The reason is that Bill Brown, the Foreman, was in a position to ask the Engineering and Inspection Departments WHY this stamping was NECESSARY. He was given the following answer: 'Are you fellows still doing that? It is not necessary to stamp the word TOP on the newly designed Shields that have the upper left hand corner cut off. There is only one way they can be assembled NOW. The stamp should have been left off 6 or 8 months ago when the design was changed.' "

"Someone forgot to tell the Foreman about the stamp and forgot to change the blueprint and specifications."

HOW THE RIVETING DETAILS IN STEP III WERE SIMPLIFIED

Arrange the work place with the sheets ON the bench, packing case beside the operator, ONE riveting machine on the bench, and the CARD in YOUR HAND. Make a careful and logical explanation as you demonstrate ALL the significant moves and developments worked out by the foreman.

"Let's see how Bill Brown, with some help from his operator, Jim Jones, simplified the details noted 'better way.' He used these principles and ONLY these principles."

This is the way Bill said he reasoned out the improvements. He used the card to get ideas.

- He read: "PRE-POSITION the materials in the proper work area."
  - He moved the sheets near the riveting machine.
  - But they were still awkward to pick up.
- Again he consulted the card: "Use JIGS and fixtures for holding."
  - This gave him an idea. Why not make jigs to hold the sheets?
  - Jim Jones suggested putting an angle arm that would fan out the sheets on each jig, so he could always pick up one sheet with each hand.
  - So Bill had the jigs made up.

- But it was still necessary to LINE UP the sheets by hand.
- Also one hand had to be used for holding while doing the riveting.
- As Bill studied the problem an idea developed: Since there were two punchings, why not try TWO riveting machines?

- He looked at the card and read: "Use jigs and FIXTURES for holding."
  - This seemed to be a good idea, so he had a fixture designed to HOLD and EXACTLY SPACE the riveting machines.
  - Once the fixture was made, he saw at a glance the need for guides to line up the sheets.
  - Now, one hand need not be used for holding. BOTH HANDS could be used for riveting.

As Bill and Jim tried out the improvement, they came to a defective sheet. It was necessary to get up and go to the scrap bin to get rid of it.

- They consulted the card again: "Use drop delivery chutes."
  - The operator picked up this idea and asked whether slots could not be cut in the bench.
  - This was done and the scrap boxes were placed under the slots.
  - Now, it was NOT necessary to get up so as to discard scrap.
- Bill then made the job still "EASIER" by having the fixture made of just the right thickness so that a pile of 20 completed Shields would be flush with the top of the fixture.
  - The empty cases for finished Shields WERE PRE-POSITIONED within easy reach.
  - Then it was a simple matter to place the Shields directly in the packing cases until they were filled.

"This was the REASONING Bill went through, with some help from one of his workmen, when they worked out the proposed method. They used the principles on the card and only these principles.

THE EIGHT STEPS OF A PRACTICE DEMONSTRATION

A great help to the Trainer and the group members is to list on the blackboard (in very abbreviated form) the eight steps for putting on a practice demonstration. These demonstrations take place during Sessions II, III, IV and V.

In their briefest form, without regard to conventional abbreviation, the eight points would be written like this:

1. Describe the job
2. Demo present method
3. Read details—present
4. Info. from Step II
5. How info. used in Step III
6. Demo proposed method
7. How use Step IV
8. Sum up

LIST OF TRAINING MATERIALS USED IN THE FIVE TWO-HOUR SESSIONS

Item	*Form Number*
SUGGESTED INTRODUCTION	JM–1
PRESENT METHOD LAY-OUT	JM–2
PROPOSED METHOD LAY-OUT	JM–3
BREAK-DOWN SHEETS	JM–4
PRESENT METHOD BREAK-DOWN	JM–5
PROPOSED METHOD BREAK-DOWN	JM–6
JOB METHODS INSTRUCTION CARD	JM–7
SAMPLE PROPOSAL	JM–8
PROPOSAL SHEET	JM–9
PROPOSAL REPORT	JM–10
SUPERVISOR'S CERTIFICATE	JM–11
ATTENDANCE RECORD	JM–12
DISCUSSION GUIDE	JM–13

DEMONSTRATION KIT, consisting of:

1	Fixture	1	"Top" Stamp
2	Jigs with angle arms	1	Stamp Pad
		250	Copper Cards
2	Staplers	250	Brass Cards

JOB METHODS BREAKDOWN SHEET

Operation: Inspect, Assemble, Rivet, Stamp and Pack Product: Radio Shields Department: Riveting and Packing

Your name: Bill Brown Operator's name: Jim Jones Date: June 14, 1944

List of All Details for {PRESENT / ~~PROPOSED~~} Method Every single thing that is done—Every inspection—Every delay	Notes Reminders—Tolerances—Distance—Time Used—Etc.	Ideas Write them down—Don't trust your memory
1. Walk to box of copper sheets.	Placed 6 feet from bench by handler.	
2. Pick up 15 to 20 copper sheets.		
3. Walk to bench.		
4. Inspect and lay out 12 sheets.	Scratches and dents. Scrap in bins.	
5. Walk to box and replace extra sheets.		
6. Walk to box of brass sheets.	Placed 3 feet from copper box by handler.	
7. Pick up 15 to 20 brass sheets.		
8. Walk to bench.		
9. Inspect and lay out 12 brass sheets.	One on top of each copper sheet.	
10. Walk to box and replace extra sheets.		
11. Walk to bench.		
12. Stack 12 sets near riveter.		
13. Pick up one set with right hand.		
14. Line up sheets and position in riveter.	Line-up tolerance .005".	
15. Rivet top left corner.		

(OVER)

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List of All Details for PRESENT / ~~PROPOSED~~ Method Every single thing that is done—Every inspection—Every delay	Notes Reminders—Tolerances—Distance—Time Used—Etc.	Ideas Write them down—Don't trust your memory
16. Move sheets and rivet top right corner.		
17. Remove, reverse, and position in riveter.		
18. Rivet bottom right corner.		
19. Move sheets and rivet bottom left corner.		
20. Remove, reverse, and place shield on table.		
21. Stamp identification and pile on table.	"TOP" on brass—lower right corner.	
Repeat No. 13 to No. 21—11 times.		
22. Carry 12 shields to tote box and place in box.		
23. Carry full tote box to scale and weigh.	50 feet from bench to scale.	
24. Make weight ticket and place in box.	Approximately 75 pounds—gross.	
25. Carry tote box to packing department.	By handler—100 feet.	
26. Take shields out of tote box.	By packer.	
27. Pack shields in shipping case. 200/case.	Check inspection. Wood cases supplied by handler.	
28. Close, weigh, and stencil case.		
29. Mark weight on delivery slip.		
30. Set case aside for shipment.	Empty tote boxes returned by handler.	

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JOB METHODS BREAKDOWN SHEET

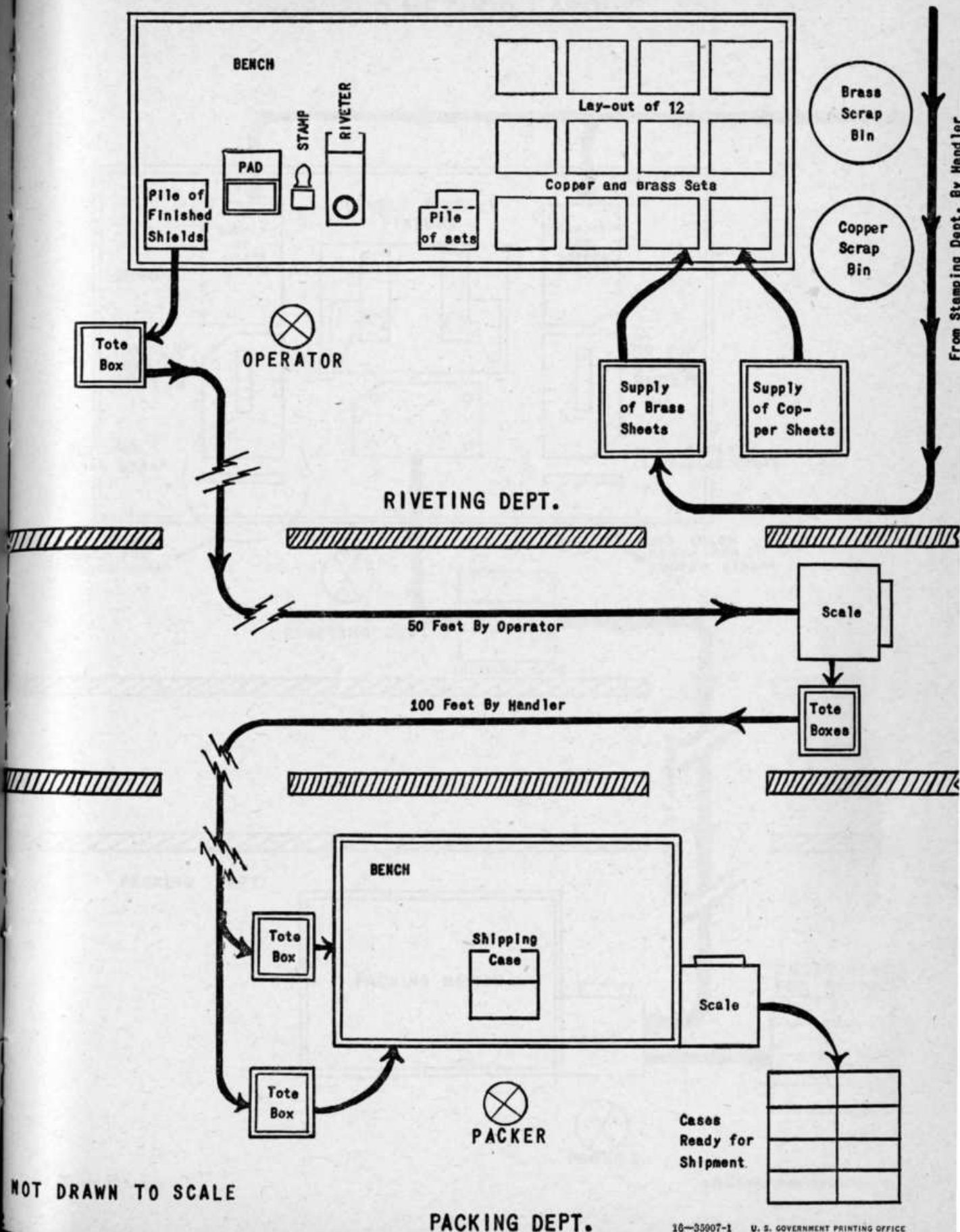
Operation Inspect, Assemble, Rivet, Pack Product Radio Shields Department Riveting and Packing

Your name Bill Brown Operator's name _____ Date June 14, 1944

List of All Details For {~~Present~~ / Proposed} Method Every single thing that is done—Every inspection—Every delay	NOTES Reminders—Tolerances—Distance—Time used—Etc.	IDEAS Write them down—Don't trust your memory
1. Put pile of copper sheets in right jig	Boxes placed on table by Handler	
2. Put pile of brass sheets in left jig		
3. Pick up 1 copper sheet in right hand and 1 brass sheet in left hand		
4. Inspect both sheets	Scratches and dents. Drop scrap through slots	
5. Assemble sheets and place in fixture	Fixture lines up sheets and locates rivet holes. Brass sheet on top	
6. Rivet the 2 bottom corners		
7. Remove, reverse, and place sheets		
8. Rivet the 2 top corners		
9. Place Shield in front of fixture Repeat No. 3 to No. 9 incl.—19 times		
10. Put 20 Shields in shipping case—200/case	Cases placed by Handler	
11. Carry full cases to Packing Dept.	By Handler with hand truck	
12. Close, weigh, and stencil cases	Check inspection by Packer	
13. Write weight on delivery slip		
14. Set cases aside for shipment		

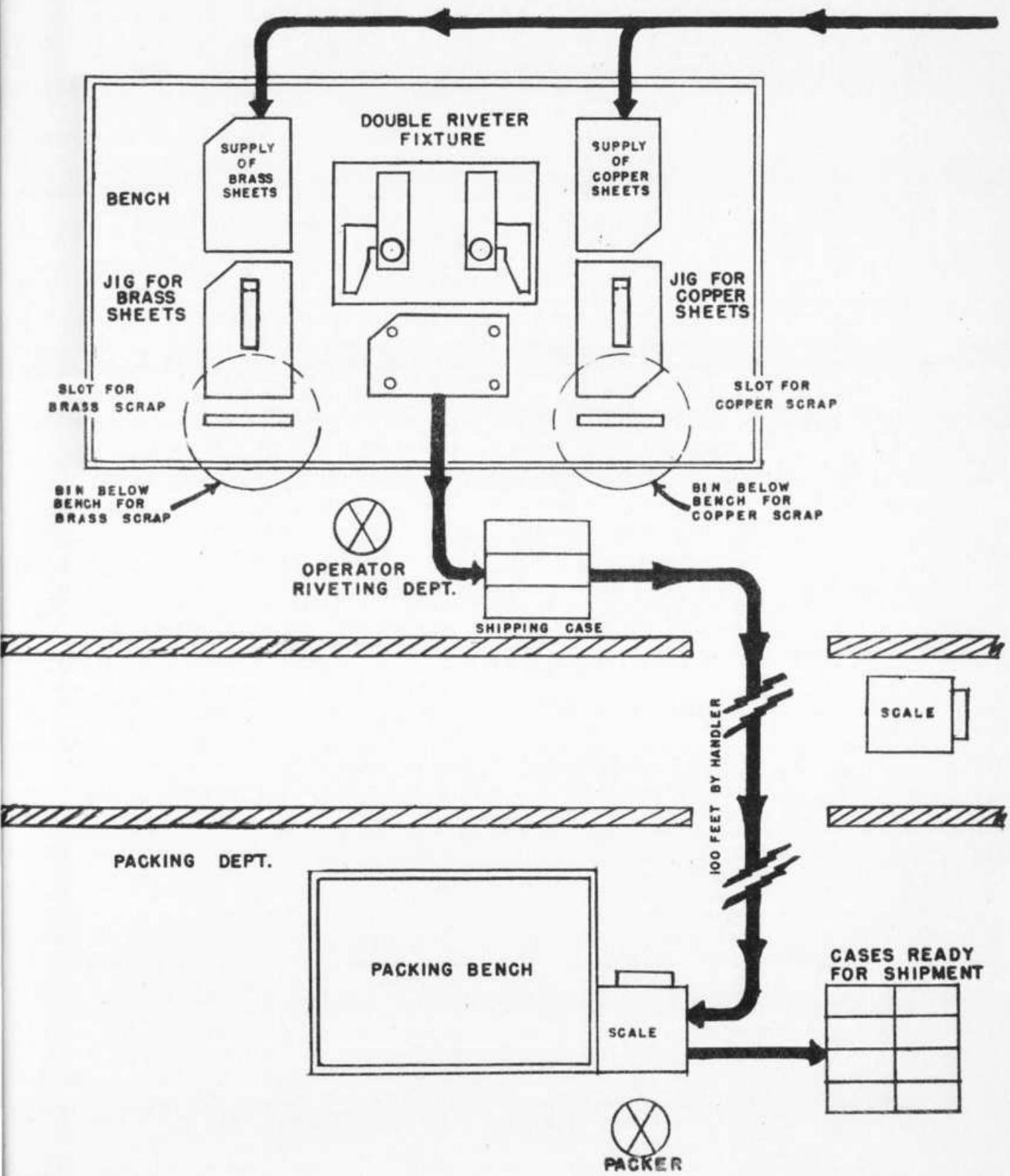
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Job Methods Training
PRESENT METHOD LAYOUT



16—35907-1 U. S. GOVERNMENT PRINTING OFFICE

JOB METHODS
PROPOSED METHOD LAYOUT



NOT DRAWN TO SCALE

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JOB METHODS
PROPOSAL

To R. V. Swift, Supt. Date June 14, 1944

From Bill Brown, Riveting Dept. Department Riveting

Product or Part Radio Shields

Operation Inspect, Assemble, Rivet & Pack

Following is my proposal for improving the method for doing this work:*

We can produce 2400 shields per day per operator instead of 800, - have each riveting machine drive 4800 rivets instead of 1200, - decrease material scrap from 15% to less than 2% and use 2 inexperienced operators instead of 4 efficienced men by making the following changes:-

1. Have brass and copper sheet bases delivered to a specified place on riveting benches by the material handlers.
2. Put 2 riveting machines on each bench and use a riveting fixture to line up and hold the sets of sheets so 2 rivets can be driven at the same time.
3. Use 2 jigs made from scrap material to hold sheets alongside of fixture so sheets can be picked up with both hands.
4. Eliminate the "TOP" stamp because it is not necessary on the present style shield.
5. Have shipping cases delivered to riveting benches and let the operators pack shields in cases by count.
6. Cut slots in bench so scrap can be dropped into scrap bins.

See Job Breakdown Sheets and sketch attached.

Credit is due Jim Jones for helping with this improvement.

*Note.—Tell exactly HOW you believe this improvement can be accomplished. Use another sheet for additional information or sketches if needed.
Attach Present and Proposed Break-down sheets.

(over)

JM-8

16—34947-2

(PROPOSAL—REVERSE SIDE)

Before turning in your PROPOSAL, be SURE you have rechecked the New Method with th Job Methods 4-STEP PLAN.

STEP I.—BREAK DOWN the job.

1. List ALL the details of the job EXACTLY as done by the Present Method.
2. Be sure details include all:
   - Material Handling.
   - Machine Work.
   - Hand Work.

STEP II.—QUESTION every detail. Use these types of questions:

1. WHY is it necessary?
2. WHAT is its purpose?
3. WHERE should it be done?
4. WHEN should it be done?
5. WHO is best qualified to do it?
6. HOW is "the best way" to do it?

Also QUESTION the—

MATERIALS

Can better, less expensive or less scarce materials be substituted?
Can the scrap from this job be used for another product?
Have defects and scrap been reduced to a minimum?
Are the material specifications entirely clear and definite?

MACHINES

Is each operating at maximum capacity?
Is each in good operating condition?
Are they serviced regularly?
Is the machine best for this operation?
Should a special set-up man or the operator make all the set-ups?
Can use be made of the machine's or operator's "idle" time?

EQUIPMENT AND TOOLS

Are suitable equipment and tools available?
Have they been supplied to operators?
How about gauges, jigs, and fixtures?
Have equipment, tools, been properly prepositioned to permit effective work?

PRODUCT DESIGN

Could quality be improved by a change in design or specifications?
Would a slight change in design save much time or materials?
Are tolerances and finish necessary?

LAYOUT

Is there a minimum of back-tracking?
Are the number of handlings and the distances traveled at a minimum?
Is all available space being used?
Are aisles wide enough?

WORK-PLACE

Is everything in the proper work area?
Can gravity-feed hoppers or drop-delivery chutes be used?
Are both hands doing useful work?
Has all hand-holding been eliminated?

SAFETY

Is the method the SAFEST as well as the easiest?
Does the operator understand all safety rules and precautions?
Has proper safety equipment been provided
Remember, accidents cause WASTE of manpower, machines, and materials!

HOUSEKEEPING

Are working and storage areas clean and orderly?
Is "junk" taking up space that could be used for additional operators, machines benches, and operations?
Do away with anything that is unnecessary
Be sure necessary things are in proper places.
See that good Shop Housekeeping reduces delays, waste, and accidents!

STEP III.—DEVELOP the new method.

1. ELIMINATE unnecessary details.
2. COMBINE details when practical.
3. REARRANGE for better sequence.
4. SIMPLIFY all necessary details.

STEP IV.—APPLY the new method.

1. SELL your Proposal to your Boss and Operators.
2. Get final approval of all concerned on SAFETY, QUALITY, QUANTITY, COST.
3. Put the New Method to work. Use it until a <u>better</u> way has been developed
4. Give CREDIT where credit is due.

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JOB METHODS TRAINER'S GUIDE

Foreword

Since the goal of every sincere trainer is to do the job competently and throughly, this guide merely offers some of the thinking behind the manual and serves to clarify reasons for this thinking.

There are three separate features in presenting Job Methods Training, KNOW the manual, UNDERSTAND the manual, and KNOW the objectives to be attained in each session.

This guide is developed to make your job convincing and the program clear.

Think of the ten-hour session as a challenge to you to convince every member that the principles are sound and the plan practical.

Keep before the group continuously that Job Methods Training is a PRODUCTION TOOL that may be used daily for results, not a course that merely broadens knowledge.

SESSION I

Introduction by the Plant Executive

Many trainers wonder why this is a must of the program. The reasons should be obvious. We all like to get started on the right foot, and if the plant executive pledges cooperation and support, the members of the group immediately react to the importance of the program.

It lends a flavor of cooperation and production interest that helps you, the group, and management.

FIVE MINUTES, NO MORE. And if the executive wants to know what to say, refer him to the written introduction for ideas.

Introduction by the Trainer

Remember the old adage, "First impressions are lasting impressions!" This is your opportunity to sell yourself to the group, and it is a mighty important sale.

We all like a friendly, informal atmosphere. We like the man who can be himself. Be natural, be one of the group, get in the "first name" habit quickly.

Tell the members without fanfare of your background, merely to justify that you are a practical man with industrial background and not a formal educator.

Distribute the name cards, it breaks the spell of listening. Have each man say a few words about himself, it gets them talking. Often it breaks the ice with the skeptics. A few remarks to tie your background in with his helps SELL yourself, if done naturally.

Remember, reasons are powerful so now is the best time to develop the reasons behind the need for T.W.I. Training.

Develop the "five needs" of every supervisor, get their agreement that this is sound reasoning, and fits their job.

Now, what comes next?

You have sold yourself to the group and the need for supervisory "tools of production", now, isn't it natural to sell the tool on which you will concentrate for ten-hours, Job Methods Improvements.

Sell the purpose, the need, that it isn't a new idea, and the Mr. Supervisor, the man right in the group is one of the best sources for ideas and always has been. What you are going to do is to offer a plan that has been tried and proven, developed by men who KNOW the problems of production, and that you KNOW the plan will work because you have worked it yourself.

Watch for the paragraph, "During the next four sessions each of us will have a chance to use this plan on jobs from our own departments!" Here is the opportunity to clearly explain in a few words, what will be expected of them. Each will apply these principles to a small job, ANY small job in fact, and the ideas must be new, not already in effect. This emphasis will sharpen attention for the remainder of Session I. Don't overlook this opportunity, it will help you.

To whet their appetites a little, tell them that certificates will be given those who complete five sessions, something to always remind them of their contribution to the war effort.

If you have handled yourself well to this point, you have done a swell job of selling yourself, and the idea that the program fits them like a glove.

Describe the Use of the Demonstration Job

The preliminaries are completed, now it's time to toe the rubber and start pitching.

Up to now there has been a lot of telling. And telling gets tiresome, so the pace changes. What could be more logical than to select a job, any job, and use this job as a means to clarify the program by demonstration.

But Mr. Skeptic is going to say that's fine, but what does the "any job" have to do with my work?

"My work is different!"

Anticipating this hurdle, you make sure that this cannot be said. You patiently develop the three types of work from the group and drive home that in any job that has any one of these three types of work, these principles apply.

To make sure the die-hards aren't still skeptical, stick your neck out, and ask if anyone can think of a job in his department that does not have at least one of these types of work. This clinches it, for any job can be shown to have at least one of the three types of work.

Now the group is ready to really absorb the demonstration, for they are thinking in terms of some job in their own departments, as compared to the demonstration. THIS IS REALLY AN IMPORTANT PART OF THE PROGRAM. UNLESS YOU GET IT OVER CORRECTLY YOU MAY FIND THE GOING ROUGH.

Present Demonstration

There is just one way to make this effective. Practice makes perfect, and practice you must.

The order is logical and simple. Describe the job so that the group can visualize the product and the work place. Then do the job. The way you do it will help you greatly later in the program, so do it exactly as directed in the manual.

Anticipating that someone may still be a little hazy, you then hand out the "Present Method Layout" and review the flow of material and lay out. Just another means to make sure they understand the job. Good instruction, isn't it?

Then to make sure the group has grasped the three types of work, have them point out the Material Handling, Machine Work, and Hand Work.

Demonstrate the Proposed Method

Contrast is impressive, so now since the group is interested in results, why not show the results. Sure, it's a little showmanship, but it's sound and impressive.

First we tell them what happened after the foreman applied the principles and later they will see just how it was developed.

Keep in mind that now you are merely showing "What" happened, and this will keep you away from the "How" it happened that comes later. All you are doing is demonstrating the results, NOT how they were developed.

Again the clearest way is to describe the changes, and then perform the Proposed Method.

As after the Present Method demonstration, to make sure each member understands, hand out the Layout Sheet of the "Proposed Method" and review it. Then compare it with the Present Method. The contrast is convincing.

Sell the improved method by selling the results in terms of production, machine use and scrap. Make it impressive.

These results might be accomplished at the expense of the operator, so to make absolutely sure no one gets this idea, KNOCK OUT once and for all that the operator works harder, or in a hurry, or that he or she is speeded up. Act out the speed up, show how this always creates waste and then emphasize

that there is NO speed up in Job Methods Improvement. Improving methods increases production by ELIMINATING the UNNECESSARY PARTS OF THE JOB AND MAKING THE NECESSARY PARTS EASIER AND SAFER TO DO.

Stress that after all, these principles are applicable to any job, as was actually the case in the foreman's plant and that hundreds of other jobs were improved.

Now we are going to see HOW it was done by applying the principles and how each in the group can do the same thing on one of their jobs.

Hand out the cards. This is the "textbook". It's all on both sides of the cards.

While you are distributing the cards, clear off the table for you will want to build up the job later and this is the best time to get things in order, so that the group will clearly see the next buildup.

Present the Job Methods Plan

Just explain the four main principles on the card as a lead into the four-step plan.

Step I

The value of every step must be clearly established both as to content and ease of application.

It will all fall in line if we follow the manual and understand the strategy.

First present Step I by reading it in detail.

Then as another aid to clarification, use the board to focus attention on Step I, and the fact that each must LIST ALL DETAILS. (Don't forget the line across the board for this will help you space the following steps.)

You have made a flat statement, now it must be justified. Drive home the reasons why a breakdown is the foundation of all improvements.

To illustrate we know few of the facts on our every day activity, the examples of buttons on the shirt, eyelets in the shoe, etc., bring this home to the group. More contrast, more showmanship, but it works. To effectively handle this section follow this pattern:

a. State that you will diverge for a few moments to illustrate that we seldom know the details of things we do day in and day out.

b. Select a member of the group. Ask "Do you know how many buttons are on your shirt?" (or a similar question regarding any other article you select). If he answers "Yes" go to another member. If he answers "No!" ask if he would like to guess.

c. After he has guessed right or wrong and counted them, make the statement, "Now you <u>know</u>, you have the <u>facts</u>!"

d. Repeat for at least one other member on another article.

If you use other approaches, you may end up with a slightly pink face.

Then comes the description of a detail. Nothing complicated, nothing burdensome.

To show how EASY it is to list details, refer to the Radio Shield Present Method, and have the group develop with you the FIRST FIVE Details. Now you can appreciate how necessary it is to perform the Present Method correctly, for what you DID THEN will determine what you GET BACK NOW. Lead the group and keep on the beam. No long discourses or discussions, for you are doing this for a definite purpose. When the five details are listed, have the group volunteer the time taken to list the five details. Not over <u>2 minutes</u> if you have handled yourself correctly.

Now you hand out the breakdown. Does it look like a long burdensome job? No! Because you have cushioned the presenting of it by developing the five details so easily and quickly.

Compare the five details on the board with those on the breakdown. Then by simple mathematics, the whole breakdown of thirty details can be done in a few minutes. Drive home the fact, "Did it pay to spend 15 or 20 minutes on a breakdown that will increase production 3 times?" Any sensible person agrees. Drive home the importance that NO MATTER HOW BUSY WE ARE, IT ALWAYS PAYS TO TAKE TIME TO SAVE TIME. The busier we ARE the more Job Methods can HELP US.

This can be most effective. Practice it, refine your presentation, make it flow smoothly and effectively.

Just follow your manual for the balance of Step I. It's right down their line of experience.

Step II

Step II is probably the most difficult to interpret, yet it is the tool which starts the ball rolling to gather information.

The first few paragraphs give you a splendid opportunity to express your individuality and impress the value of a questioning attitude.

Then to the blackboard to list the questions with the help of the group, and then the explanation of each of the six questions. You MUST KNOW and UNDERSTAND the use of these six questions. They must be a part of you, so that irrespective of the detail, the job, the action, or whatever it is, you can apply them intelligently.

Then comes Item 2, Step II and again you must understand the importance of these items. Not just lip service, real understanding.

This furnishes the explanation, now comes the application to the Radio Shield sample. If you UNDERSTAND the six questions, this is duck soup. If you don't, you need a life preserver. Don't make it complicated, don't make an engineering job of it. Just handle it in an easy logical way, and get the

group to list the notes on their breakdown sheets. Keep emphasizing and re-emphasizing that this is the information gathering step. No changes. No flash ideas in use, just gathering every bit of useful information in the way of notes.

Ask your questions and answer them. Just be Bill Brown, the foreman, and if the group tries to cross you up, throw your arms around old "Bill Brown". He made the breakdown, he asked the questions, NOT YOU. Bill can be an awfully handy person.

This gives the group a pattern on the "HOW" of applying Step II.

Step III

Now you are ready to do something about all the information gathered in Step II.

Use the blackboard as indicated in the manual to again give the group visual as well as spoken relationship between Step II and Step III.

Now let's look at the logic of the presentation. Think for a minute how anyone might handle Step III on the job. First they would eliminate everything unnecessary, then combine as many necessary details as possible, rearrange the remaining details that could not be combined, and finally simplify all details that might be simplified.

That's exactly the way it's handled except that you demonstrate the development right through from ELIMINATE TO SIMPLIFY.

When you reach item 4, "Simplify the necessary details", you merely amplify the principles of simplification by simple homely comparisons that all may understand, and then demonstrate "How" Bill Brown used these principles just as anyone in the group might use them on his own job.

It's so direct and convincing. By this time the light begins to dawn, and the whole picture enfolds.

From here on the going gets smooth. The manual guides you, the reasoning is sound and then each item stands out with logic and clarity.

Section 12 to end

You may wonder about a few of the items after Step IV.

For example: Why go around the conference table and have each man state the job he will tackle?

Once a man has stated his job, he has bought the program, it focuses his attention on a specific job. He has started to think and question. Just exactly what you as the trainer want. Remember that most men have, not one, but many jobs in mind.

Be careful that the group understands that you will not hold them exactly to the job they have mentioned, if they find another that they think more suitable. Be informal and flexible.

Caution them that NO improvements already developed are acceptable. The improvement must be new, their idea.

Another question, "Why bring up Section 15"? Just anticipation and if you can beat the other fellow to the punch, you are on to as the group leader.

Now it isn't a tough job if you UNDERSTAND the manual, is it? What you do in Session I, the way you handle yourself, and the interest you develop pays dividends in Sessions 2, 3, 4, 5.

The challenge is yours. Remember, all of us can always refine and improve. Follow the manual but make the manual be yourself, so that your performance sparkles.

A job well begun is a job well done.

OBJECTIVES OF SESSION II-III-IV-V

Before discussing the handling of each of the remaining sessions, you should have a clear conception of the overall objectives to be accomplished during the ten hours, and what your fundamental thinking must be to reach these objectives.

Objective #1 - To make sure that each member understands each and every part of the 4-step Job Methods Plan.

Objective #2 - To convince every member that the principles of Job Methods Improvement apply to ANY job that has Material Handling, Machine Work, or Hand Work, whether repetitive or not.

This may sound very elimentary, but let's not fool ourselves. It is much easier said than done.

Certainly the improvements are important, but NOT AS IMPORTANT AS A CLEAR UNDERSTANDING OF THE USE OF THE PLAN, and how it applies. Then, let's always keep Objective #1 foremost, keeping in mind that for some members it may be Session V before they see the light. Remember if they fail, YOU have failed.

Keep always before you that your obligation is to <u>sell</u> the plan, so that at the conclusion of ten hours each will agree that the JOB METHODS PROGRAM is a PRODUCTION TOOL, that may be used daily on ANY job.

The way you handle Session II determines to a great extent the ultimate success of the ten hours.

Let's review for a minute just where you are in the development of the program and how much the group has absorbed. You will be a genius, or a magician, if every member of the group has a CLEAR picture of the use of the four-step plan. Let's assume the progress of any group is as fast as the SLOWEST MEMBER.

Therefore, the best for which you may hope, is that the group has absorbed 50% of what you put over in Session I, and you had to do a bang-up job if you approached this figure. The best assumption to take is, "Let's start over as far as understanding".

Remember too, the group has seen only the Radio Shield Job, not a job from their plant and you still may have skeptics.

It is, therefore, important to you as the trainer to make Session II impressive. This is the SPOT THAT YOU CAN REALLY DO A SELLING JOB. If you do, Session III, IV, and V really roll. If you don't, you may still be fighting a few by the end of Session V.

Treat Session II as a CLARIFICATION SESSION, of what you attempted to put over in Session I.

The most natural thing to do first would be to review the 4-step plan by questioning the group, and developing it on the board. Just a quick way to pull the group together and focus attention of the USE OF THE PLAN (Objective 1).

While doing this, test your group for understanding. Ask some leading questions, that develop the "reasons why" we perform each step. Encourage questions from the group. Remember, some members will have a questioning attitude, while others hesitate to appear "slow to grasp" before the group. A clear answer to one question may clarify the thinking of the several in the group. Get the answers from the group whenever possible. USE the conference technique.

Now you are ready for the demonstrations but before you begin Demonstration #1, clearly outline the points to be followed in each demonstration.

Some trainers use a corner of the blackboard if large enough, and list each point, following the manual. Others have a prepared sheet which they place conveniently in the room (preferably in the back, or side of the room) which can be used as a guide.

Also ask each member to keep notes on the USE of the plan (Remember Objective #1) as well as questions to be asked after the demonstration is concluded.

The manual calls for two important questions before the demonstration, "Do you have a Present and Proposed Breakdown?", and "Is the Improvement a new one?" If you desire a red face and complete chaos, just neglect to ask these questions. We might let you learn from bitter experience, but frankly we think too much of you. Call for another volunteer IF THE DEMONSTRATOR ANSWERS 'NO' TO EITHER QUESTION. ALLOW NO EXCEPTIONS.

The first demonstration is all important. A few simple rules to follow:

1. Go to the back of the room and be one of the group. If the demonstrator talks to you, he will at least talk through the group, not away from them.
2. Keep notes inconspicuously, but for goodnass sakes KEEP NOTES on the good points, as well as the bad.
3. Interrupt ONLY if demonstration is off the beam or not understandable. Ask the group to follow your example.
4. When the demonstration is completed, have the demonstrator return to his place at the table, and you take charge. Many times it is embarrassing to the demonstrator to have questions fired at him while Mr. Group leader lolls comfortable back in his chair. DON'T LET IT HAPPEN.

5. Follow the procedure outlined in the manual.

Now let us review some things that cannot be put in the manual for every group is different and IT'S UP TO YOU TO HANDLE THE SITUATION INTELLIGENTLY.

After you have complimented the demonstrator on the good points, and there are good points in every demonstration, (It's up to you to detect them) and opened up the questioning period and discussed ideas for further improvement from the group, YOU now begin to SELL THE PLAN.

Nine times out of ten on Demonstration #1 you get steps on the breakdown and not details. If by a miracle you get details, don't pat yourself on the back. It's usually just a coincidence. Take the breakdown and go to work.

List the details on the board correctly. You will have to work mostly with the demonstrator because he knows the job, but keep group participation at least by agreement UNTIL enough details are listed so that EVERYONE underetands just what a DETAIL is in Job Methods! On the average, twenty details are usually sufficient. This is where you SELL STEP I and SELL you must. Very often it immediately brings out the ridiculousness of the way the job is done. MAKE SURE THAT EVERY DETAIL IS LISTED.

Are you finished? No you're just getting started. Pick out several details and question them with the IDEA OF THE GROUP DEVELOPING AN IMPROVEMENT THAT THE DEMONSTRATOR DIDN'T FIND. THIS IS DONE BY THE USE OF THE PLAN, NOT FROM YOUR BACKGROUND OF EXPERIENCE.

Don't be an expert. It's dangerous!

If you are able to develop an improvement, your whole program is MADE. You are well on your way toward Objective #1 and Objective #2. You have demonstrated that there is nothing up your sleeve, that the plan works on any job, and to prove it here is a job you never saw before from their plant. What a job you can do from here in with this kind of handling.

Follow the manual for the use of ALL FOUR STEPS and then sum up the improvements on the board.

IF THIS TAKES THE WHOLE TWO HOURS, TAKE IT. It will pay dividends in the remaining three sessions.

If you have time for the second demonstration, fine, but don't force it. Make SURE the first is completed clearly and thoroughly.

If you do put on the second demonstration, repeat the procedure of handling the first demonstration.

Don't be an expert. It is dangerous!

You can see the logic of this technique. It is far better to have clear understanding and realization of the value of each step, than to have a startling improvement that confuses thinking of the group.

Allow ten minutes to cover the use and handing out of the proposal sheets. This is another important part of the plan. DON'T NEGLECT IT.

Then four volunteers for Session III, Review and Closing.

If you have carefully followed this plan you should have brought out:

1. A clear understanding of a detail and how to breakdown a job.
2. The importance of Step I in relation to the maximum improvement.
3. The realization of the members to demonstrate SMALL JOBS. (Many try in Session II to rearrange the plant and perform miracles. Drive for the small jobs to start. The larger ones may follow later.)

After you have completed Session II, sit down by yourself and analyze just what happened. Possibly you can improve your handling for subsequent groups, as well as the remaining sessions.

SESSION III

From here on you begin to roll IF you have capably handled Session II.

The group should have a pretty fair understanding of the 4-step Plan.

After the preliminaries of thanking the group for their interest, and complimenting those who presented their demonstrations in Session II, ask everyone to put their cards in their pockets.

Then develop the 4-step Plan on the blackboard by group participation. Again plenty of "reasons why". Just another of the many opportunities to continue to sell Objectives #1, and #2.

Follow the manual regarding the procedure to be followed during each demonstration, and again list on the board the eight points, or refer to prepared chart. (As listed in Session II of Trainer's guide).

While referring to these eight points, stress the following interpretations for the demonstrator:

1. When reading the details of the breakdown, read only sufficient details to make sure that they are details, and not steps. (Possibly 10 - 15 will suffice).
2. When explaining how Step II was used, question in detail only 3 or 4 details and then read the balance of notes, as listed on the breakdown after applying the questions. (This is to save time and keep the demonstration from dragging by lengthy repitition).

You will find that this will give you an accurate picture of whether the improvement was developed from the plan, or whether the breakdown was developed from the improvement. (Believe it or not, this happens).

Follow the simple rules outlined in Session II while the demonstration is in progress, as follows:

1. Ask if the "Improvement is a new idea".

2. Ask if the Present and Proposed Breakdowns are prepared.

   (If the answer to 1 and 2 are NO call on next volunteer)

3. Clear the blackboard and suggest sketches for clarification.

4. Take a seat in the back of the room.

5. Keep notes inconspicuously.

6. Allow no interruptions, unless absolutely necessary.

7. Take charge at the conclusion of the demonstration and have all questions and discussion ONLY when the demonstrator has resumed his seat at the table.

Your strategy of handling demonstrations from here on differs somewhat from Session II.

Compliment the good points as before. Then open the discussion for questions and further improvements.

Then to the USE of the plan. (Objective #1)

If the breakdown shows steps, go to the board again and break down a <u>few</u> steps into details, from the group. Request the demonstrator to rewrite the breakdown for practice, and submit at the next session.

If the details are well listed, compliment the volunteer, and READ several to give the group. (Another shot at the proper way to <u>list</u> the details).

Some trainers effectively ask, "Did the breakdown HELP YOU with this improvement?" or "Could you have made as complete an improvement without a breakdown?" The answer will be affirmative providing you have used judgment in asking the question.

Ask for group reactions on the breakdown, directed toward the importance of Step I.

Now you must clarify Step II so bring out forcefully just what this pattern is. If you want to do it effectively, list a few details on the board

and question them as a pattern. (If the details are on the board, use them). Again bring out group participation and clarify any confused thinking.

Remember the TWO important points on questioning details.

1. Question ONLY the ACTION part of the detail.
2. Question each detail with all questions necessary before proceeding to the next detail.

Discuss Step III by group participation and how it was used.

Discuss Step IV by group participation.

Sum up the improvements on the board.

After the first demonstration, AGAIN REVIEW the use of Step II as directed in the manual.

Proceed with as many demonstrations as possible, always keeping in min that we are driving for Objective #1, and #2 and any failure to use the plan, or any step, will be reflected in confused group thinking. Correct errors, continuing to repeat the reasons behind each step. In other words, CONTINUE TO SELL.

Allow ten minutes before the end to read Proposals and demonstrations in Session II. Encourage group comments.

Close the session following the manual.

Again, have a little mental chat with yourself. Pick out the weak points and eliminate them from your handling of demonstrations. Emphasize and smooth out the strong points. You will know. Use Methods Improvement on your own job.

SESSION IV

This is handled very similar to Session III. Since there has been additional practice and additional clarification, your job should become easier, if you have followed instructions.

This time, after the preliminaries, list on the board only the 4 main steps, although the development of these steps is practically the same as in previous sessions.

Follow the procedures outlined in Session III in presenting the demonstrations.

Follow the seven rules outlined for the trainer during the demonstration. (Listed in Session II and III)

In Session IV, Step III is stressed and clarified, but NOT at the expense of the other three steps.

Make sure that every bit of confusion is clarified. CONTINUE TO SELL THE PLAN.

Allow ten minutes at the end for the reading of proposals and closing.

FOLLOW THE MANUAL.

Have another chat with yourself on the results obtained. Remember the adage, "When we are through improving, we ARE THROUGH."

SESSION V

This session should be the icing on the cake. There may be a few wrinkles to iron out, so make sure that everything is clear.

Again follow the manual by reviewing the plan. Only the 4 main steps on the board, but plenty of discussion and "reasons why" in developing each.

Finish the remaining demonstrations, following the pattern outlined in Session III and IV. Use the same techniques and group discussion.

The main emphasis in Session V is Step IV, and this can be interestingly presented, for it means so much to the success of the program. It further helps considerably from a practical standpoint to emphasize the use of Methods Improvement as a Production Tool, and a continuing PROGRAM.

After the Proposals for demonstrations from Session IV and V have been read and constructively commented upon, spend 10 minutes on the old keystone, Job Instruction Training.

Have the group develop for you the 4 "Get Ready Points" AND the 4 MAIN STEPS of Job Instruction Training, and then emphasize how this program can be of value in making Job Methods a continuing production tool.

Follow the manual in closing.

Have the group leave, after the 10 hours with a sincere conviction that Job Methods Improvement is a sound program, based on sound principles, and really a tangible tool that will help each and every member. Emphasize that <u>every</u> supervisor is a link in the chain to help win the war, by the use of the methods principles every day on every job.

If possible close the session by having a plant executive outline what will be expected of the group in the future, and <u>how</u> management will cooperate.

You, Mr. Trainer, have an opportunity to be of great service to the war

effort, to the company who has placed these people in your hands, and to Training Within Industry.

Make the most of it.

Be proud of your performance and contribution.

TRAINING WITHIN INDUSTRY HAS CONFIDENCE IN YOU.

IV—Job Relations

The Training Within Industry program of Job Relations was developed in order to provide management with a tool whereby supervisors could acquire skill of leadership.

The material in the "Job Relations Sessions Outlines" covers the content as handled in five 2-hour meetings for a group of ten supervisors.

JOB RELATIONS

10-HOUR SESSIONS OUTLINE

and

REFERENCE MATERIAL

Copy No. _____

For the Personal Use of

_____

a Certified Job Relations Trainer

WAR MANPOWER COMMISSION
BUREAU OF TRAINING
Training Within Industry Service
Washington, D. C.

June 1, 1944



WAR MANPOWER COMMISSION

WASHINGTON 25, D. C.

July 1, 1944

To the War Production Trainer:

Your Job Relations sessions can have for your plant and for the war production effort a constructive influence, perhaps never before experienced. You have an unusual opportunity of influencing supervisors to improve their everyday relationships on the job.

Giving workers technical skill alone is not enough. Supervisors must give every man and woman at work the leadership that enlists cooperation and teamwork. You can help supervisors to get this skill of working with people - it is your obligation to stress its importance to them.

You should strive with all the energy and diligence you possess to lead each Job Relations group in the very best way possible - and to do a better job with each succeeding group.

To assure a uniformly high standard, work from this outline always. Do not deviate from it. Do not trust to your memory, regardless of the number of sessions you put on.

Once again, leadership in Job Relations presents an opportunity and an obligation.

Sincerely,

C. R. Dooley

C. R. Dooley, Director
Training Within Industry Service

JOB RELATIONS

10-HOUR SESSIONS OUTLINE

and

REFERENCE MATERIAL

WAR MANPOWER COMMISSION
BUREAU OF TRAINING
Training Within Industry Service
Washington, D. C.

June 1, 1944

Summary of Purpose and Emphasis of Job Relations Sessions

I To establish the fact that everyday job relationships are one of the most important parts of the war production supervisor's job. To present the foundations for good relations. To establish a 4-step method for meeting job relations situations.	A supervisor gets results through people. People must be treated as individuals. Good supervision prevents many problems, but the supervisor must know how to handle those that do arise.
II To develop skill in Step 1, "Get the Facts." To give the group practice on Step 1 through emphasis on this step in a problem presented by the Trainer, and to give members of the group practice in looking at the 4-step method in two problems brought in by supervisors.	Complete facts must be known or obtained. Opinions and feelings must be found out and considered along with facts. It is necessary to look at an individual because people are not alike.
III To develop skill in Step 2, "Weigh and Decide." To give the group practice on Step 2 through emphasis on this step in a problem presented by the Trainer and to give members of the group practice in three problems brought in by supervisors.	Decisions are made on the basis of facts properly evaluated and related.
IV To establish the importance of Steps 3 and 4, "Take Action" and "Check Results." To give the group practice in Steps 3 and 4 through emphasis on these steps in a problem presented by the Trainer and to give members of the group practice in looking at the 4-step method in three problems brought in by supervisors.	The supervisor must know his responsibility. He must watch the timing of his action and follow-up, and watch for effect on the objective, on the individual, on the group, and on production.
V To give members of the group practice in looking at the 4-step method in two problems brought in by supervisors. To review and summarize foundations, 4-step method, and tips for getting opinions and feelings. To consider the other working relationships of the supervisor—to other operating departments, to staff departments, and to his boss.	Further develop the habit of using the complete method. Point out application of the method to supervisor's other relationships. A supervisor gets results through people.

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Strategy for Job Relations

Training Within Industry looks at the training of supervisors as a five-part job. That is, the supervisor has five needs.

1. Knowledge of the work
2. Knowledge of responsibilities
3. Skill in improving methods
4. Skill in instructing
5. Skill in leading

Job Relations is a streamlined intensive program designed to give operating supervisors practice in developing skill in leading. It is not intended to provide any training in the "knowledge of responsibilities" area — the job of training supervisors in the policies, agreements, and regulations of a particular plant must be done by the plant—and it assumes that a supervisor has a knowledge of the work.

Job Relations aims to develop a skill—not to give stock answers to personnel questions or problems, or to provide industrial relations background on such subjects as rates of pay, safety, etc.

Since Job Relations is focused on working with people, descriptions of what happens to people are the materials for this program. In the standard Sessions Outlines there are 4 of these problems, each of which is used at the specific point for a particular reason. The time of the members of the group is spent mostly on the handling of their own problems which they bring in for group discussion.

Job Relations is limited to groups of ten supervisors. Experience has shown that this number is desirable. A smaller group does not provide enough variety of problems and a larger group provides too much material for inclusion within the ten hours.

In some instances observers have been admitted to the sessions with the purpose of giving them familiarity with the contents of the program as it normally operates. These observers are requested to stay in character as observers and are not permitted to join in the discussion. When there are observers present it should be made clear to them in advance that they are not being asked to attend in order to assist in lining up how the program should operate—this is a standardized program and no deviations or changes are to be made.

Training Within Industry urges the use of this program for all of the plant's first-line and second-line supervisors. Those who are new on the job of directing the work of other people need help and training more than those who have had experience on the job.

However, if management says that all its supervisors would benefit by this way of looking at employee relationships or that the pressure of present production conditions has brought about an increase in the problems which a supervisor must *handle*, the same training program will apply to persons who have been on higher level jobs for some time. The nature of the problems brought in and the discussion may be quite different from those in a group of new, first-line supervisors.

If in such a group their problems tend to be unanimously well handled, the Trainer should make a specific appeal for the bringing in of situations which have had poor results and also for the kind which may be sized up in advance to get good results through preventive action.

Out of the experience of preparing this program good reasons have developed for doing what is done, in the way it is done, and at a particular time.

SESSION I—PRESENTATION OF FOUNDATIONS FOR GOOD RELATIONS AND THE 4-STEP METHOD

Getting Acquainted

Ask each man in the group about his own background and present supervisory job. This brings quick and easy participation from every member of the group. The members are being asked to tell something about which they and only they have the story. Also, the Trainer gains valuable information about the people with whom he will be working for the next ten hours.

The Supervisor's Five Needs

The five needs are discussed to emphasize to supervisors that, regardless of their industry or department, they must be well versed in two knowledges and three skills in order to be effective supervisors. One of these needs is the skill of leading which is covered in these sessions.

Chart on Supervisory Responsibility

The development of the chart with "people" in the center and the arrow linking the supervisor to the people is a quick means of focusing attention on the subject-matter of Job Relations. There also is real group participation in the development of this chart as members point out their responsibilities.

Foundations for Good Relations

There are certain basic points which are followed by effective supervisors. While Job Relations does not give a great deal of time in the ten hours to these foundations as such, nevertheless it is necessary to recognize their importance and to put them across in a way which will gain acceptance. They form the underlying spirit of good relationships and promote good supervision.

Chart on the Individual

The pulling out of one person from the group of people through whom the supervisor gets results is done because of the need of pointing out that people must be treated as individuals since they are different in background, interests, and tastes.

The Joe Smith Problem

This problem is told by the Trainer. It is short and the telling gives it much more reality than reading. Also, the members of the group will be telling their problems later, and the Trainer should set the pattern he wishes used.

This situation was handled in a way that got poor results. Such a problem was chosen for several reasons. First, it will often be necessary for the group to be critical about the results which a supervisor gets when he does not use the complete 4-step method. It is easier to start this pattern by presenting a problem which does not personally concern any member of the group.

Second, the problem is a very simple one from which it is easy to pull out the positive points which need to be made. Asking where the supervisor skidded almost invariably sets up the main points of Job Relations' 4-step method.

The telling of the problem is broken into two parts in order to get emphasis for the importance of starting the 4-step pattern at the beginning — getting facts before attempting to make a decision and take action. The discussion begins in the pattern which will be followed throughout. That is, it is necessary to first pull out just what the supervisor is trying to accomplish. This pattern of discussion enables the leader to keep away from criticism of decisions by focusing on the use of the method. The four main steps on the card are pulled out from the Joe Smith problem. Experience has shown that the discussion is belabored if the attempt is made to also develop the sub-points.

How Problems Arise

This material is presented in order to show supervisors that they often can get in on situations early, that an advance size-up may prevent problems. This

also will suggest to members of the group other problems which they might bring into the discussion.

Problem Sheets

The problem sheets are used to get conviction from the group that the Job Relations program is aimed at the kinds of problems that supervisors encounter every day. It also gives hints on the type of problems which the members of the group will bring in for discussion.

Requests for Problems

Members of the group prefer to talk about their own problems rather than those brought in by the Trainer. The four standard problems are used because it is necessary to insure that certain points of the method are put across. But once these points are worked in, the rest of the time is given to the problems which the men themselves are living with every day. The problems are restricted to those which are within the supervisor's own job to handle, something he can and must do something about.

SESSION II—IMPORTANCE OF GETTING THE FACTS

The Tom Problem

This problem is chosen to show the necessity of getting the facts and the importance of remembering that opinions and feelings must be considered the same as facts. The problem also gives some hints as to the way in which you get personal facts.

This problem is read, as exact words are important. Since it must be well read, which involves previous practice, it is specified that the Trainer read both parts of the dialogue.

This particular problem points to the difference between facts about the man and facts about the machine—both are necessary in order to have the whole story. The members of the group are also given a hint that it is sometimes necessary to probe a bit for the meaning behind words.

This problem points out the special importance of handling confidential material properly.

At a number of places the Trainer stops reading in order that the group may discuss specific points. It is possible in this way to get recognition of a few of the tips for getting personal opinions and feelings which will later be developed and summarized.

Problems Brought in by Supervisors

In the first supervisor's problem, and all succeeding ones, the man who is to present a problem should come to the head of the table with the Trainer. It has been found that shifting of position in the room is welcome and there appears to be a certain advantage in focusing on the man in this particular way. In the handling of the supervisor's problem the objective is pulled out to open the discussion. The Trainer must at all times be careful to key the comments, to "Did he follow the four steps"—not to "Did he make a good decision?" The discussion must be handled so that the supervisor who presents the problem gets practice in using the 4 steps (see Standard Procedure, Reference Section).

Request to Consider Several Problems

Since occasionally a group member who is new or reluctant to talk does not wish to bring a problem for discussion, and also because some problems are so simple that any lengthy discussion would be belabored, it is sometimes necessary to have more than one problem from some members.

If a man says that he does not have any problems in his department, review the problem sheet again and ask such questions as "Does output ever fall off?" "Did anyone ever ask for a raise?" "Are any changes coming?" etc. If the man is obviously unwilling to present a problem after spending some time on reconsidering kinds of problems, do not press him too far. This would be poor Job Relations. (He cannot, however, be certified if he does not present a problem.) Personal coaching may help a man who is reluctant to present a problem.

Request for Problems with Poor Results

If all problems are well handled, discussion is not as interesting as if a diagnostic technique can be used to show where the supervisor skidded.

SESSION III—BASIS FOR DECISIONS

The session is opened by showing that a doctor in getting the symptoms of a patient goes through a process quite like the J.R. 4-step method. Comparison with the doctor is used to show that the 4-step method has universal application, that it is specifically followed in a prominent profession, and perhaps most important of all to show that the doctor needs and gets much confidential information which he must handle well or it will not again be available to him.

The Shipyard Problem

This situation which ended in poor results is used to stress Step 2, "Weigh and Decide." It brings out the necessity of using all the facts and weighing

them before making a final decision. The poor decision was reached because the supervisor first did not properly evaluate the facts which he had, and second, because he did not have the whole story.

SESSION IV—CHECKING RESULTS OF PREVENTIVE ACTION

The problem of the first Woman Supervisor is used as an example of good results of preventive action. The problem involves a number of people, and the subject is one which is current in many war production plants. The members of the group are also given a tip to work through those people who are recognized as natural, but informal, leaders.

Effect of Change

This subject is brought up to show that the problem of the first Woman Supervisor is not a "Woman" problem, but one typifying "change." Change is usually resented, and supervisors need to take preventive action.

SESSION V—A SUPERVISOR'S OTHER WORK RELATIONSHIPS

Request for Statements on Use of Job Relations

By getting the members themselves to pull out the advantages to them personally of following a method which will improve the quality of decisions and actions and which also shows the importance of checking results, the selling of Job Relations is completed.

Chart

The supervisor's responsibility chart as used in Session I is now amplified in order to point out to the supervisor the important position in which he is and to give recognition to it. This chart also offers the opportunity of again stressing "Get the Facts." The Trainer develops the idea that *getting* the facts will be useful in any relationship that the supervisor has, and that in a number of cases he will be responsible for *giving* the facts.

Closing Statement

The members of the group must leave with the feeling that what they do does matter, that it is very important. When the Trainer has made this point the session should be ended no matter what time it is. After a high point has once been reached, the whole effect can be ruined by keeping the members straining at a discussion in order to fill the hours.

INTRODUCTION OF JOB RELATIONS TRAINER BY MANAGEMENT REPRESENTATIVE

Trainer to provide Management representative with copy of this page

Job Relations is:

streamlined program for war industry from Training Within Industry

drawn from experienced supervisors in industry

The management:

has approved this program

wants it for this plant

expects you to attend each session, and be here on time.

This is *your* meeting—

no reports are going to be made to management, except on attendance.

There will be:

5 two-hour meetings

held at_____in_____room, on_____

This program is important:

management expects you to do a good job—includes good relations with the people you supervise

management knows you are going to get some real help

this method will show you how to be a more effective supervisor

This is Mr._____

JOB RELATIONS TRAINER'S INTRODUCTION WHEN NO MANAGEMENT REPRESENTATIVE ATTENDS

I am_____

Management:

has approved the Job Relations Program

wants it for this plant

Job Relations is:

streamlined program for war industry from Training Within Industry

drawn from experienced supervisors in industry

This is *our* meeting—

no reports will be made to management, except on attendance.

There will be:

5 two-hour meetings

held at_____in_____room, on_____

CODE

CAPITALS	Section heads
Horizontal line across page	Encloses section for timing
Plain type	Trainer says in own words
★ Star in front of line	Trainer says verbatim
Material between lines	Board work
[Bracket]	Instructions to trainer

Job Relations—Session I

PRESENTATION OF FOUNDATIONS FOR GOOD RELATIONS
AND 4-STEP METHOD

ALLOW 5 MIN.

INTRODUCTION BY MANAGEMENT
(recommended procedure)

Give management representative copy of outline (page 10). Best results are obtained when a management representative opens the session.

5 MIN. TO HERE

Introduction by trainer (emergency only). Use outline (page 11) when impossible to get management representative to open the session.

ALLOW 10 MIN.

GETTING ACQUAINTED

1. Tell something about your own background of supervisory experience. This is important even if you know all members of the group.

2. Have supervisors introduce themselves.

   Use name cards.

   Ask each man to tell you:

   work—department—number supervised—supervisory experience.

3. [If there are observers, explain:

They wish to know more about the program.

They do not enter the discussion, ask questions, or make remarks.]

4. [Stress—our meeting—problems discussed here are confidential—no names—give reasons—get agreement.]

15 MIN. TO HERE

5. Those who attend all five sessions and present a problem will receive certificates.

ALLOW 10 MIN.

DISCUSS THE SUPERVISOR'S FIVE NEEDS.

In these meetings we are going to use the term "supervisor" a great deal.

★ For the purpose of our discussions when we refer to the
★ supervisor we mean anybody in charge of people, or who
★ directs the work of others.

We are all supervisors.

Good supervisors have always realized that they have five needs.

Let's take a look at these needs. They are:

★ 1. knowledge of the work
★ 2. knowledge of responsibilities
★ 3. skill in instructing
★ 4. skill in improving methods
★ 5. skill in leading

[Count the five needs on your fingers as you enumerate.]

1. *Knowledge of the work* refers to the kind of information which makes your business different from all other businesses:

materials	tools	operations
machines	processes	technical skill

Many a person has spent his lifetime in his work and is still acquiring knowledge of it. If he moves to another industry, a new knowledge of work has to be learned.

We are not going to attempt to meet this need in these sessions.

2. *Knowledge of responsibilities* refers to the particular company situation regarding:

policies	regulations	interdepartmental
agreements	safety rules	relationships
rules	schedules	

These are different in every company. Hence this knowledge of responsibilities must be supplied locally.

Every supervisor to do his job must have a clear understanding of his authority and responsibilities as a part of management.

These local responsibilities are the "ground rules" under which every supervisor has to work—but we are not going to attempt to meet this need in these sessions.

3. *Skill in instructing* is concerned with helping supervisors develop a well-trained work force:

have less scrap, re-work, and rejects
have fewer accidents
have less tool and equipment damage

This skill is practiced in Job Instruction sessions.

4. *Skill in improving methods* deals in utilizing materials, machines, and manpower more effectively by having supervisors study each operation in order to combine, re-arrange, and simplify details of the job.

   This skill is practiced in Job Methods sessions.

5. *Skill in leading* helps the supervisor to improve his ability in working with people.

   There are basic principles that, when applied day in and day out, will tend to keep relations smooth and prevent problems from arising.

   By pointing out the ways that problems do arise one can readily see that preventive action can be taken.

   This applies particularly in anticipating changes that may not be readily accepted and in sensing changes in output, attitudes, and relationships.

   However, when problems do arise, there is an organized procedure to handle such problems that helps get better results from the action we take.

[STRESS THE FACT THAT SKILLS ARE ACQUIRED BY PRACTICE.]

25 MIN. TO HERE

The supervisor is not born with this skill. He must acquire it by actual practice. Just as soon as this skill is acquired by a supervisor he becomes more effective in the doing of his job. In these five two-hour sessions, we will discuss this skill in leading which we shall call Job Relations.

ALLOW 10 MIN.

DESCRIBE SUPERVISOR'S PROBLEMS AS REGARDS JOB RELATIONS.

1. Too few people realize that the supervisor's job is complex and difficult.

   Management wants *output* and *quality*.

   Output and quality always require the loyalty and cooperation of people in addition to what machines can accomplish.

   Can we do something which will improve loyalty and cooperation? That is the purpose of these meetings.

   When a machine is installed in a department, a handbook comes with it—or there may be a mechanic specially qualified in how that particular piece of machinery works, and directions on how to keep it in good operating condition, or what to do when it breaks down.

   Supervisors get new people all the time, but handbooks don't come with them.

   How are you going to keep those new persons in top form? What will you do if they fail?

   Employees will tend to judge the whole plant in terms of the treatment they receive from their immediate boss.

   Remember your first day on the job? I still remember mine. (Illustrate)

   There are thousands of people in supervisory positions today who were operators a short time ago.

   As time goes on thousands more men and women will have to assume supervisory jobs.

Some of these people—some men, some women, have long backgrounds as operators, some do not.

These new supervisors *must* quickly learn to work *through* people.

They must recognize that they can get their jobs done only through the cooperation of the people whose work they direct.

Supervisors, new and old alike, are confronted with the problem of obtaining the cooperation of:

people who have never worked before

people who have had steady work but of a different nature

Newly appointed supervisors also may have the problem of obtaining the cooperation of people who:

know more about the technical aspects of the job than they do

have many more years of service than they have

[Try to get agreement.]

To meet such problems some kind of training in the special skill of leading is necessary.

This skill of working with people has long been recognized as a mark of good supervision.

2. What do we mean by "good supervision"?

★ Good supervision means that the supervisor gets the
★ people in his department to do *what* he wants done,
★ *when* it should be done, and the *way* he wants it done,
★ because *they* want to do it.

3. ★ Now, in these sessions I'm not going to tell you how to run your job.

   But experienced supervisors have developed a skill in working with people.

   This skill can be learned.

   It saves supervisors a lot of headaches.

35 MIN. TO HERE

   Let's see what we can find out about this skill.

ALLOW 10 MIN.

SHOW THAT A SUPERVISOR MEETS HIS RESPONSIBILITIES THROUGH RELATIONSHIPS WITH PEOPLE.

1. ★ What are the common titles for different levels of supervision in this shop?

   These may be suggested:

lead man	crew chief	group leader
gang boss	supervisor	foreman

★ For the purpose of our discussion, when we refer to a ★ "supervisor" we mean ANYBODY WHO IS IN ★ CHARGE OF PEOPLE OR WHO DIRECTS THE ★ WORK OF OTHERS.

[Write "Supervisor" and enclose in a box near top of left third of board.]

Supervisor

I was in a group not long ago where one supervisor said, "I make wire." Did that supervisor himself make wire? No, he supervised a department in which many people worked together to turn out the wire.

Write *above* Supervisor:

A supervisor gets results through people

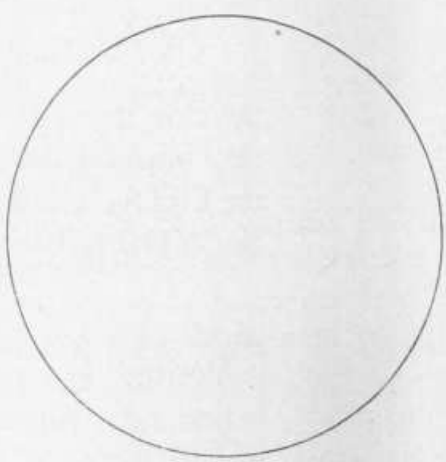
Let's look at what you do as a supervisor.

We will let this circle represent the supervisory job.

Draw circle under supervisor.

A supervisor gets results through people

Supervisor



2. Let's look at the things for which your boss holds you responsible.

★ Of course, our boss
★ holds us responsible
★ for production.

[Write Production in one segment.]

★ Besides production, for
★ what else does your
★ boss hold you respon-
★ sible?

[As members suggest kinds of supervisory responsibilities, write the name and outline the segment. Write down whatever is mentioned, but try to include those on the chart at right.]

A supervisor gets results through people

Supervisor



[Any of the following suggestions may be offered:

reports	plant protection
scrap	schedules
morale	

Leave top section of the circle unlabeled.]

★ We will let this section represent all other responsibilities
★ of the supervisor.

3. ★ We won't try to define the whole supervisory job—
★ instead let's see if there is anything in common about
★ these responsibilities.

Who gets out production?

[Do not spend too much time getting the answer, which is "People." Give it yourself if someone does not give this answer.]

[Put small circles in the "Production" segment.]

A supervisor gets results through people

Supervisor

★ These represent peo-
★ ple.

Whom do you train?

[When someone says "People," put in other circles in segment marked "Training."]



[Continue until there are small circles in every segment including the blank one. You can say:]

How do you get quality?
Who gets hurt?

[Use "who" questions.]

Is there any part of the supervisor's job which does not involve people?

No.

[Place circles in blank segment.]

When we look at any part of the supervisor's job, we find people in the situation.

[Enclose small circles in a hub.]

[Erase most of the small circles and write PEOPLE inside the hub.]

The supervisor gets results through people.

[Point to heading.]

A supervisor gets results through people

Supervisor



★ In order to meet these
★ responsibilities there
★ must be some relation-
★ ship between the su-
★ pervisor and each of
★ his people.

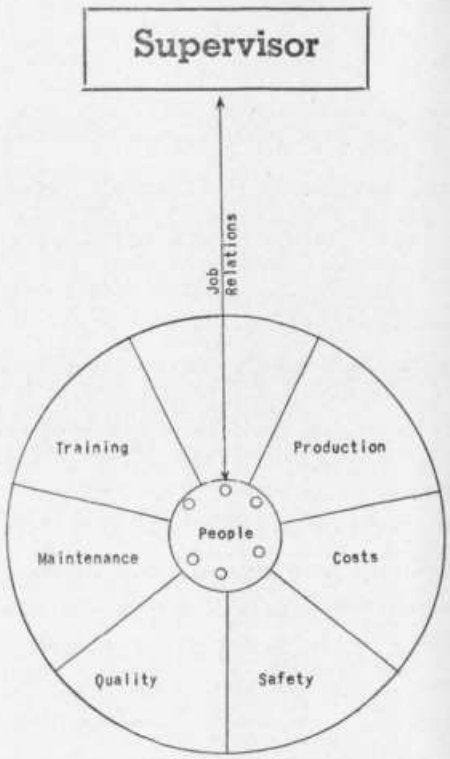
★ Let's have this line rep-
★ resent that relation-
★ ship.

[Draw double-headed arrow and label it Job Relations.]

Job Relations are the everyday relations between you and the people you supervise.

The kind of relations you have affects the kind of results you get.

A supervisor gets results through people



Relations with some are good, with others are poor, but there are always relationships.

Poor relationships cause poor results; good relationships cause good results.

[Illustrate by use of chart.]

45 MIN. TO HERE

When a supervisor wants to meet any of these responsibilities effectively, he must have good relations with his people.

ALLOW 10 MIN.

PRESENT FOUNDATIONS FOR GOOD RELATIONS.

Experience shows that successful supervisors use definite foundations for good relations. *They find that these foundations keep the job relations line strong.*

Write on top center of board the heading.

Foundations for Good Relations

1. ★ There are some things that you and I as supervisors ★ can do, day in and day out, about keeping the job ★ relations line in good condition. ★ For instance, we can let each worker know how he is ★ getting along.

Write under heading:

Let each worker know how he is getting along

Suppose a man goes home and someone says "How are you doing on your job?" and he has to say, "I don't know—no one's said anything."

Do you think that's good job relations if the man feels uncertain about important things like his job?

We know it isn't.

Do you think it is a good idea to let each worker know how he is getting along?

Wouldn't you like to know how you are getting along? I like to.

I wonder if these people [point to board] would like to know how they are getting along. Wouldn't that strengthen that job relations line?

2. ★ Another foundation for good job relations is "Give ★ credit when due."

[Write on board:] **Give credit when due**

If a man has been sick but stays on at work to finish an important job, maybe you can't give him a raise, but you can let him know it helped you.

Do you think it is good job relations to give credit when due? Is that the kind of treatment you like?

I wonder if these people [point to board] wouldn't like it. Would it help the job relations line if we did give people credit when due?

3. ★ Another foundation for good relations is, "Tell people ★ in advance about changes that will affect them."

[Write on board:] **Tell people in advance about changes that will affect them**

Suppose someone tells you tonight that beginning tomorrow you're going to transfer to the midnight shift and start to work at midnight instead of at 8:00 in the morning?

Are you going to like it?

Are you going to think about your car pool?

You at least want a chance to have your say.

Would it be a good idea to tell people in advance about changes that affect them?

Do you think that would help the job relations line?

I wonder if these people [point to board] wouldn't like to know in advance about changes that affect them.

4. ★ Another foundation for good relations is, "Make best ★ use of each person's ability."

[Write on board:]

Make best use of each person's ability

Have you ever had a man who went sour just because he felt he could do more skilled work than you gave him to do?

Have you ever looked around your shop to see if you had that job for him?

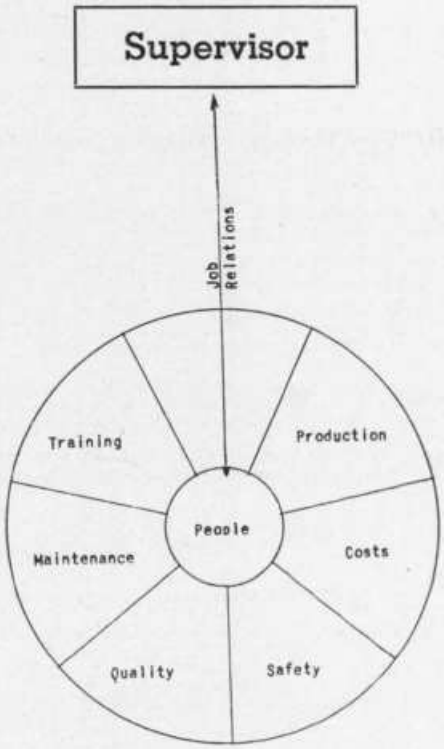
Do you think it would help the job relations line if we made the best use of each person's ability?

I wonder if we are making the best use of the ability of these people [point to board].

These foundations are important to everyone. Using them will smooth job relations and assist us as supervisors to meet our responsibilities [point to board work].

[The board will look like this:]

A supervisor gets results through people



Foundations for good relations

Let each worker know how he is getting along.

Give credit when due.

Tell people in advance about changes that will affect them.

Make best use of each person's ability.

55 MIN.
TO HERE

ALLOW 10 MIN. DEVELOP THE "INDIVIDUAL" CHART.

★ Does this mean that all these people are alike? The ★ answer is no. People are different and must be treated ★ as individuals.

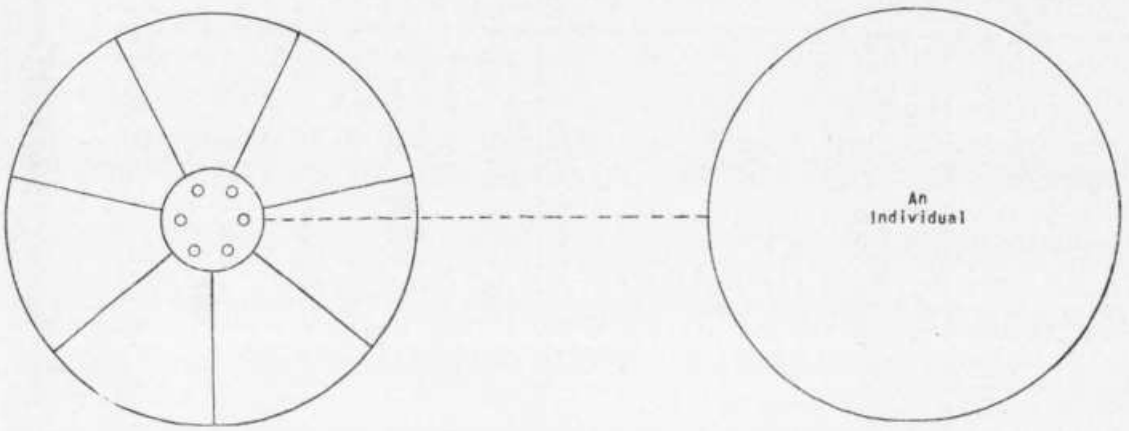
Write on top right third of board:

People must be treated as individuals

All right, no two of us are alike.

Let's pull out one of these persons and see why he is different.

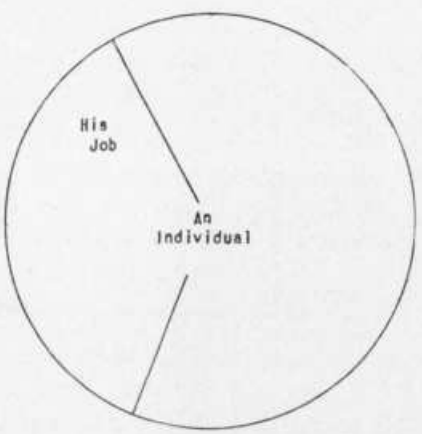
[Draw a dotted line extending from one of the small circles to another big circle. Label it AN INDIVIDUAL. Do not erase the foundations.]



We'll let this circle represent any one of these people.

★ So let's take a look at this employee and what affects
☆ him as an individual. We know that his job is a big factor.

[Write His Job on left one-third segment of circle.]



Now what else? What other things affect him as an individual? What makes one toolmaker different from another toolmaker?

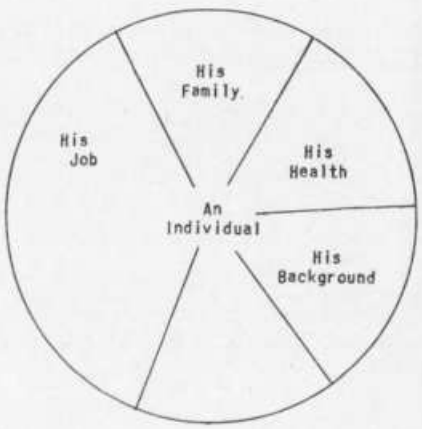
Write in interests as members suggest. Be sure to include Family, Background, and Health.

Give examples for each, such as:

Family—
Does it make a difference if he's happily married?

Background—
Is there a difference between the person who was raised on a farm and one who lived in a city?

Health—
Suppose he's going to have an operation?



You may also get Recreation, Wages, Love Affairs, Education.

Write down not more than two or three of these.

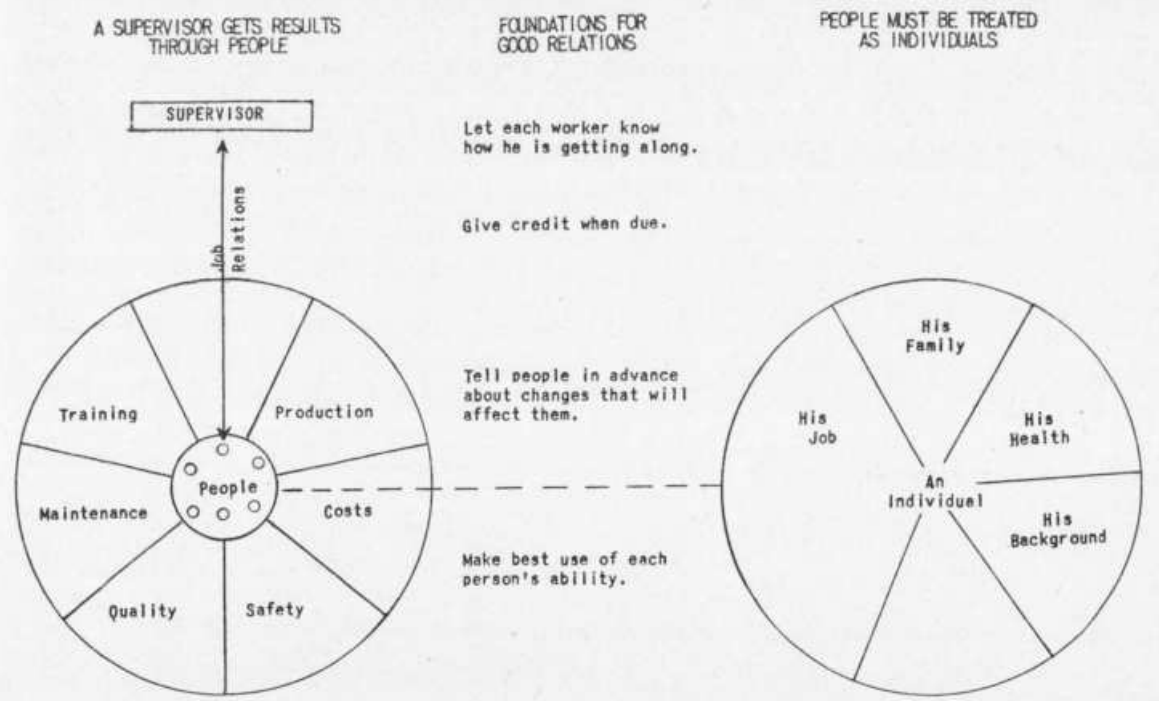
Leave one segment for other factors.

There are, of course, many additional things which affect the individual on the job.

[Leave one section unlabeled.]

Let's let this segment represent Other Factors.

[The completed chart work will look like this:]



All of these really affect the individual who comes to work in your plant.

He doesn't leave part of himself at home when he comes to work.

The things noted in the circle make individuals different.

You need to know this person as a separate individual because he is different and that affects him on the job.

These differences are not ones that supervisors can change, but we must recognize them as differences which affect the worker on the job.

[Summarize chart:]

—A supervisor gets results through people.

—By using the foundations we can improve our relations with people.

—A supervisor must treat his people as individuals.

1 HR. 5 MIN. TO HERE These are the basis for good job relations.

But their use will not prevent all problems.

ALLOW 5 MIN. DEFINE A "PROBLEM."

What do we mean by a problem?

★ A problem is ANYTHING THE SUPERVISOR ★ *HAS TO TAKE ACTION ON.*

Changes, interruptions, and failures *do* occur; and situations do arise. These cause problems.

Each supervisor needs *skill* in understanding individuals, sizing up situations, and working with people.

We are going to get experience in using a *method* for meeting problems. This method has been developed in sound industrial practice.

What we are going to be working on is the relation between you and the people you supervise.

This relationship is the same whether you are working on a quality problem or a maintenance problem or any of your other responsibilities.

We will consider your responsibilities for production, quality, etc., only in so far as *they are* affected by job relations.

These relations are important.

They affect the job.

Good relations give you good results.

Poor relationships give you poor results.

1 HR. 10 MIN. TO HERE Conditions change all the time—so do relations.

ALLOW 15 MIN. INTRODUCE T.W.I. METHOD.

[Tell the problem of Joe Smith.
Do not read. The trainer must be able to *tell* this well, changing no ideas, but using words natural to him.]

1. Let us take a look at how one supervisor took action on one of his problems—something that happened in a war production plant.

Joe Smith was a good worker and his earnings were high. The department was busy and was on a regular 6-day schedule. Some time ago Joe had fallen into the habit of laying off every *Monday*. The rush of work was so great that his staying away held up a lot of work. The supervisor had spoken to Joe about it several times—but Joe just said that he was making more money in five days than he used to make

in two weeks. The supervisor tried to appeal to Joe's patriotism, but saw that he did not get any place.

Then Joe got married and he started working six days regularly. The supervisor decided that the extra money looked good to Joe and that was why he came to work all the time. Joe kept up the good record for a few months.

Then one Monday a general increase was announced. On Tuesday Joe failed to come to work. The supervisor decided that the extra money had again brought Joe to the place where he could get along on five days' pay. He decided that he was going to teach Joe a lesson, and that the only way to get at Joe was to show him how it would feel to lose five days' pay.

When Joe came in Wednesday, the supervisor was waiting for him on his way to the locker room and called out—"Hey, Joe, don't bother changing. I'm laying you off for a week. That'll give you a chance to think over what's in your pay envelope. Maybe you'll decide it won't be so bad to get six days' pay next time."

[Erase charts from board.]

2. [Discuss.]

This supervisor had a problem, didn't he?

How do you think he handled it?

★ Just what was this supervisor trying to accomplish?

[Get the group to say:]

He wanted Joe at work regularly.

[If the group tends to agree with the supervisor, remind them that what he wanted was "Joe on the job."]

But he sent him home.

Would you have taken this action?

[Do not let this go into extensive discussion.]

[If these points do not come out in the discussion, make them yourself:]

He made no attempt to find out why Joe didn't come to work that particular day.

The supervisor jumped to the conclusion that Joe, in spite of his apparent change, was after all just an irresponsible person.

That the contents of the pay envelope were all that mattered.

The disciplinary action that the supervisor took was hard on the department.

3. [Tell what happened next.]

Well—the supervisor laid Joe off. A few days later at lunch another supervisor came up to him and said he'd heard he was pretty tough on Joe Smith. Joe's father had been hurt in an accident last Tuesday. Joe had asked the next-door neighbor to send word to the plant that he was called out of town. The neighbor forgot. When Joe went back to the plant Wednesday, he didn't know that his supervisor hadn't heard about what had happened.

4. [Discuss.]

Do these additional facts throw more light?

Joe had had a good record for a while, but the supervisor had decided that the wage increase was the reason for his not coming to work.

The supervisor felt that he wasn't going to be able to count on him.

Joe's failure to come to work had been for a good reason.

He thought his supervisor had been notified.

Let's look at what the supervisor did from three angles:

How would Joe feel toward his supervisor?

How did the other people in the department feel about the way he treated Joe?

What did it do to production?

It was the wrong thing to do on all three counts.

5. Is there a way to avoid mistakes like this?

What could Joe's supervisor have done first?

[If someone suggests "Talk to Joe" or "Give him a chance to explain," ask, "Do you mean 'Get the facts'?"]

[Write on board:] **Get the Facts**

It certainly is important to *"Be sure you have the whole story."*

Then what would he do with these facts?

[Get group to say and write on board:] **Weigh and Decide**

Aren't we all tempted to jump at conclusions?

After deciding, what would he do next?

[Get group to say and write on board:] **Take Action**

It's easy to pass the buck, isn't it?

After you take action, is it a good idea to see how it came out?

[Write on board:] **Check Results**

Did Joe's supervisor's action help production?

1 HR. 25 MIN. TO HERE [Leave steps on board.]

ALLOW 15 MIN. HAND OUT CARDS, SUMMARIZE 4-STEP METHOD.

[Distribute cards individually—STRESS THEIR IMPORTANCE.]

[Read the "How to Handle a Problem" side of the card and comment as follows:]

★ 1. Get the Facts.

We said that Joe's supervisor did not get the facts.

★ Review the record. (source of facts)

The supervisor recalled Joe's previous bad record but evidently overlooked his recent good record.

All records are not paper records. You include what you know about someone.

★ Find out what rules and plant customs apply. (source of facts)

It apparently was a custom in this plant to call in if you were not coming to work.

There are some things that are accepted as what you do in the plant. Some are written and they're rules. But the unwritten customs are just as strong.

★ Talk with individuals concerned. (source of facts)

Joe's supervisor did not take the time to do this.

★ Get opinions and feelings. (source of facts)

This supervisor just didn't think of what Joe felt; remember that what a person feels or thinks, right or wrong, is a fact to him and must be considered as such.

★ Be sure you have the whole story. (a caution)

You pointed out that the supervisor didn't have the whole story—he did not know *why* Joe didn't come to work.

★ 2. Weigh and Decide.

★ Fit the facts together.

Look for gaps and contradictions. In this one there were gaps, but the supervisor didn't try to fill them in. Joe's father's being hurt is the big gap in the facts.

★ Consider their bearing on each other.

This supervisor only looked at the bearing of some facts on each other. He overlooked Joe's current good record and decided that the wage increase and Joe's previous record accounted for his absence.

★ What possible actions are there?

This supervisor thought there was only one thing to do. There is usually more than one possible action if we stop to weigh all the facts.

★ Check practices and policies.

The supervisor has to know the ground rules. He has to know whether his action is within company policies and practices.

★ Consider objective and effect on individual, group, and production.

Joe's supervisor did not consider the effect of his action on his objective, on Joe, on the other people, or on production.

★ Don't jump at conclusions. (a caution)

Do you think that Joe's supervisor jumped at a conclusion?

★ 3. Take Action.

★ Are you going to handle this yourself?

It was up to Joe's supervisor to handle this problem.

★ Do you need help in handling?

Sometimes we can get help from another department—from the plant hospital, personnel, or the payroll department.

★ Should you refer this to your supervisor?

You have to decide whether a problem is beyond your own authority for action.

★ Watch the timing of your action.

The timing does influence the effectiveness of what you do.

★ Don't pass the buck. (a caution)

I guess we all know what this means—and we can say for Joe's supervisor that he didn't pass the buck.

★ 4. Check Results.

It is always important to consider how you are going to follow up.

★ How soon will you follow up?

You make your first check as soon as you can reasonably expect results.

★ How often will you need to check?

Sometimes you keep an eye on something for quite a while just to make sure that your action hasn't caused another problem.

★ Watch for changes in output, attitudes, and relationships.

You have to look at what your action did to the group as well as to the individual person concerned.

★ Did your action help production?

We've seen that Joe's supervisor fell down straight through because

he failed to get the facts
he didn't even consider all the facts he had
his action was wrong
and he got poor results

[Ask supervisors to turn the cards over. Read the "Foundations for Good Relations," commenting as follows:]

★ Let each worker know how he is getting along.

Do we all want to know how we are doing?

★ Figure out what you expect of him. (action point)

Is it a good idea to decide what he is supposed to do so you can let him know how he is doing?

★ Point out ways to improve. (action point)

Does it help much to say "You're all wrong there"?

How about saying "Suppose we try this"?

★ Give credit when due.

Don't we all respond to recognition?

★ Look for extra or unusual performance. (action point)

Sometimes it's the man who's unusually reliable who deserves some form of credit.

★ Tell him while "it's hot." (action point)

Don't get so busy that you overlook some simple thanks right when they are due.

★ Tell people in advance about changes that will affect them.

All of us have to get used to changes.

★ Tell them why if possible. (action point)

Give reasons, not arbitrary decisions.

★ Get them to accept the change. (action point)

Help people to understand.

★ Make best use of each person's ability.

This is particularly important in wartime.

★ Look for ability not now being used. (action point)

Are you sure you know just what skills there are in your shop? Are you training new men when there is a skilled man doing some other job?

★ Never stand in a man's way. (action point)

Do people think you hold them back just to get your job done?

★ These are the basic rules for good relations. They will
★ do a job for you if you use them. If they are used they
★ will keep many problems from coming up.

Remember that you need to treat all people as individuals.

These foundations will smooth job relations but they will not insure you against problems.

We have supervisors because there are problems to handle.

1 HR. 40 MIN. TO HERE

You and I are supervisors because management expects us to handle these problems.

ALLOW 5 MIN.

SUMMARIZE.

1. Good supervision includes two points:

   Handling the department and working with the individuals in it in a way which makes everyday relationships smooth and prevents many problems. This is covered by the Foundations.

   Handling problems that do arise is covered by the 4-step method.

2. The supervisory job can't be run from a set of rules any more than you can learn to play baseball from a book. You can read about pitching a curve but you can't get the ball to curve until you have practiced.

3. Conditions *do* change; interruptions do occur; problems do come up. The Foundations and this 4-step method will help you to handle these problems. This is a pattern to follow.

   This method applies whether there is a Wagner Act or not, whether you are dealing with a man or a woman, Negro or White, Republican or Democrat.

   Why is this so? Because *people are people* once you get under their skins, regardless of race or color.

DISCUSS HOW PROBLEMS COME UP.

★ Let's look at the way PROBLEMS come up.

★ 1. If you're on the watch in your department you'll be
★ tipped off when you notice changes in people's work
★ or attitudes. Suppose a man suddenly gets quarrel-
★ some with everyone around him—that's a problem,
★ isn't it? Effective supervisors get in on these early.

★ 2. Or, you may even have a situation to *size up before it*
★ *happens*. Management may announce changes in pol-
★ icy. Suppose you are going to bring a group of women
★ into a department where there have been only men.
★ You may want to do some preventive work and size
★ up that situation in advance so that you won't have a
★ problem to handle later.

★ 3. Sometimes they "come to you." A man may ask for
★ a raise or a transfer, or he may have a problem or
★ question.

1 HR. 45 MIN. TO HERE

★ 4. Others, you "run into." Suppose you tell someone to ★ do something, and he won't do it. Or perhaps it's ★ someone who's late.

ALLOW 15 MIN.

CONSIDER SUPERVISOR'S PROBLEMS ON THE JOB.

1. [Distribute problem sheets.]

Some of the same problems come to all supervisors.

Maybe you have all of these—or none.

[Ask group to check problem sheets.]

[Read five or six out loud—discuss, not at length.]

[Let the group read all the way through.]

In this group we are going to be working on supervisors' problems—the things he has to do something about.

[Comment on number of problems group has.]

2. [Describe practice in following sessions. See Tips for Trainers.]

Each of you will have a chance to bring in a problem during these sessions.

We will work on these problems to develop our skill in the use of the 4-step method.

Do you ever have to handle one like any of these?

JOB RELATIONS SITUATIONS AND PROBLEMS

Lack of teamwork in department.
Worker doesn't understand his part in the whole job.
Man goes to your boss to complain.
Someone kicks about working conditions.
Prospective change in hours is apt to make trouble.

Man wants to change jobs often.
Man takes chances at work.
Worker fails to come to work every day.
Employee loses interest in job.
Man feels he is being pushed.

Man resents changes.
Drop in individual production.
Drop in overall production.
Worker irritable and touchy.
Employee kicks when not promoted.

Plant protection regulations are going to be stiffened.
Worker wants more money.
Employee pulls boner.
Operator refuses to do certain work.
Employees are not going to get an expected bonus.

Careless with materials and equipment.
Man gets discouraged learning job.
Time-clock rules are going to be enforced.
Worker wants transfer for more money.
Friction between shifts.

Pay differential causes trouble.
Some day-work jobs are going to be put on piece-rate.
Man loafing on job.
Doesn't like responsibility.
Plant is going to start hiring women, or Negroes.

We *are not* going to criticize the supervisor or pass judgment on his action.

When you bring in your problem,

REMEMBER:

★ Our definition of a problem is something the supervisor
★ has to take action on. This includes recommending action.

★ It must involve you and the people you supervise—other-
★ wise we may not have all the facts or know the individuals
★ concerned.

★ You may bring in a problem that you have handled re-
★ cently. These problems are good because the facts are
★ easily recalled.

★ You may bring in a problem on which you have not as
★ yet taken action. Pending problems are always good.

★ You will help all of us if you will bring some problems
★ that didn't turn out quite right, so we can take a look at
★ why they turned out the way they did.

Please do not bring in as a problem the most involved problem that you have run into in all of your years of supervisory experience. When problems are pretty big, or involved, most of us usually say—"This is a pretty tough one. I'd better get the facts and weigh them carefully."

Supervisors tell us that they usually go a bit sour with the smaller problems as they appear to be so insignificant that they are prone not to get the facts, jump at conclusions, etc.

We want to get experience and practice here so that we will instinctively think through small problems, so that these small problems will be handled satisfactorily and forgotten.

Some supervisors say that most all of their large problems result from small problems which were poorly handled. If there is a little blaze, we usually can put it out with a cup of water, but if it develops into a big blaze, then we have to call out the Fire Departments from neighboring towns.

Sometimes we overlook the little things. You give someone work to do and he just doesn't do it.

You have a girl who doesn't get to work on time.

These small incidents are problems.

Because of our time limit we have to have short and relatively simple problems. This is necessary because we are going to apply the entire method, not just the beginning of it. We can learn the method just as well on short problems as on long ones. If we get practice and form a habit, it will be easier to use the method on more involved problems, and it will make the handling of those problems shorter.

Remember that the supervisor does much preventive work by handling his problems while they are new and small rather than waiting until they are older and more complicated.

3. Do any of you have any problems, like these on the problem sheet perhaps, facing you? I mean some you have to handle yourself? Well, will you, ... and ..... tell us about one at the next meeting just as I told you about Joe Smith, so we all can take a look at them together?

[Explain procedure for handling supervisor's problems.]

4. I'm going to bring in a problem too.

Our purpose in all these problems is to *get practice* in the use of the *4-step method*. We only acquire skill through practice.

5. You can begin to use these foundations and the 4 steps right away—on the job.

   That's where this plan pays dividends.

2 HRS. TO HERE

[Thank group for interest and participation.]

[Clear the board.]

Job Relations—Session II

IMPORTANCE OF GETTING THE FACTS

ALLOW 5 MIN.

REVIEW 4-STEP METHOD.

1. [Briefly make appropriate opening comments.]

2. Let's take a look at our 4-step method of handling problems.

   What are the four steps a good supervisor follows when he takes action on a problem?

[Draw from group and place in upper right hand corner of board:]

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

3. We are setting up a pattern here. We handle these situations in slow motion, in order to get a closer look at them. Actually, on the job, even though this method is many times speeded up, you still go through the same steps.

5 MIN. TO HERE

4. This may seem to take time—but if it saves time in the long run, isn't it surely worth it?

ALLOW 35 MIN. DEVELOP ABILITY IN USING THE METHOD by presenting and discussing the Tom problem.

1. [Focus attention on importance of Step 1—Get the Facts.]

In the use of this method Step 1 is basic, because the success of Steps 2, 3, and 4, depends on getting all the facts.

[Underline Step 1.]

1. Get the Facts

In some problems ALL THE FACTS are not obtained until personal opinions and feelings are considered. These personal opinions and feelings must be considered as facts. What a worker thinks—right or wrong—is a fact to him and must be considered as such.

I am now going to tell you about a problem in which a supervisor talked with a man and, by getting his opinions and feelings, obtained important facts.

The purpose in relating this particular problem is to stress not only the importance of getting the facts, but also to give us an opportunity to see exactly how this supervisor talked with this man in order to get personal opinions and feelings.

This problem is one where what is said and how it is said is very important. I'm going to read this to you, so we'll get just what was said by both of them.

2. [Read the problem. MAKE IT LIVE. DO NOT READ IN A MONOTONE.]

A supervisor is out in the shop and notices a workman is reaching into a machine.

Supervisor calls out: Tom, I've told you to shut off that machine when you take off the guard.

[Trainer Comment: The supervisor is mad. He's apparently warned Tom before.]

Tom yells back: If you want to fire me, why don't you say so instead of nagging at me all the time.

[Trainer Comment: Tom is mad, too.]

Supervisor: Keep your shirt on! It's far from firing you, Tom. I just don't want you to fire yourself by getting your hand mashed. The number of times that machine has to be adjusted makes me think there must be something wrong with it.

Tom: Well, I'm not going to take any more panning.

[Trainer Comment: The supervisor is certainly facing a problem and here is what went through his mind very quickly before he took any action.]

Supervisor: Now, let's see. I've known Tom a long time. He's been one of the best men in the department. He says I've been nagging him. He is reckless as the devil about his machine. Yesterday I had to call him on quality. And it hasn't been so long since I had to tell him that his line wasn't keeping up with the rest. What's happened to Tom? I guess I have been on his neck a lot. But it was always something that had to be done. And I can't have him taking chances the way he does.

[Trainer Comment: Do you notice how this problem came up? There had been a change in Tom, but the supervisor didn't get into the problem then. He waited until it burst in his face.]

Supervisor: Suppose we get together this afternoon and talk this over. I'll let you know when I can get someone to relieve you.

[Trainer Comment: Why do you think the supervisor didn't talk to him then? Do you think it would have done any good to stay there right then and *argue* with him? He isn't going to talk in the department or while Tom is mad.]

That afternoon Tom comes into the supervisor's office.

Supervisor: Hello, Tom. Sit down. Now, Tom, I guess you think I've been riding you. I don't want to do anything like that. A couple of times I felt I *had* to stop you because you were doing something dangerous. And there've been a couple of times lately when your work hasn't been quite up to par. I'm used to quality work and plenty of it from you.

Every time I see you taking a chance that might cause trouble, I've got to stop you. When your work isn't up to standard, why then I've got to say something about that too.

Now is there something the matter with the machine? I know you're always raising the guard and reaching into it. If there's something wrong with that machine, I want to get it fixed.

[Trainer Comment: What is the supervisor doing here? The supervisor is trying the obvious thing first—to see if the trouble is connected with the machine.]

Tom: Well, if you think I'm going to run over to that switch and pull it, and hang the "don't touch" sign on it—you're just crazy. You're yelling now about how little I get done. If I had to spend half of my time turning that switch off and on, I wouldn't get anything done. And the other day you said the parts were below standard. Well, if I didn't fix that machine they'd all be below standard.

[Trainer Comment: Tom isn't going to make it easy, is he? The supervisor could have cut in there and told him it wouldn't take half the time to turn off the switch. Here again he could have *argued,* but he had gotten Tom in there because he wanted to talk with him, so he wasn't going to *interrupt* him.]

Supervisor: Now, Tom, there's more to it than breaking a safety rule. There's a reason behind that rule. You're apt to get your hand mashed.

Tom: And that'd cost the company money, wouldn't it?

[Trainer Comment: The supervisor might think that Tom was sore at the company about money—or would that be *jumping at a conclusion?*]

Supervisor: Oh, sure it would cost the company money. But have we made you think that's all we're interested in?

Tom: Well, that's all that counts with some people.

[Trainer Comment: (He's bitter about something.)]

Supervisor: It'd cost us a good man. And that's a harder thing to replace than money.

Tom: Well, not everybody feels that way.

> Trainer Comment: He seems to be thinking about the *importance* of money to *some* people. The supervisor has a cue here—will he follow it up? Tom has been pretty hard to talk to. What does the supervisor have to follow up from here?
>
> Do not allow extended discussion. If the group does not make the point, say that Tom seems to be thinking about the importance of money to somebody.

Supervisor: Why are you so strong on the money angle? You're doing all right that way, aren't you? Seems to me you told me last spring you were going to build on that land of yours out on the pike. When are you getting married? When you have a wife she won't want you to take chances.

Tom: Oh—nobody cares if I do get a hand off.

Supervisor: Your girl would care.

Tom: I don't have a girl any more.

Supervisor: I'm sorry, Tom. I just wanted to get you thinking of what an injury to you might mean to somebody else.

Tom: Well, it doesn't mean anything to anyone now. Nothing about me would hurt her. Why, she knew I was going to start to build, but she married someone else. So, all I have is a half-finished house. And that's all I've got to show for it.

Nobody cares what happens to me any more. And I don't need to try to make any more money, or save it either. It changes a lot of things.

[Trainer Comment: This takes careful handling. The supervisor wants to get Tom back to normal production; he wants to stay on good terms with Tom. Now the supervisor has a chance to make a speech—he could tell Tom he was lucky to get rid of her, but he's going to listen to Tom, and *not do all the talking himself.*]

Supervisor: A blow like that's bad, and it's no use saying it isn't. But sometimes you just have to take it on the chin. Some things can be fixed up, though. And I wish you'd see your way clear to helping me figure out what's wrong with the way that line is running.

I can see why you have gotten a bit careless about taking chances. But I know you wouldn't have had to take those chances unless something else had been wrong. Now, is the machine worn? Does it need overhauling? How are the tools?

[Trainer Comment: There seem to be *two* things to look at: (1) the man and (2) the machine.]

Tom: No, it isn't the machine. The parts aren't coming through the same as they used to. There's a burr left on them; and after so many have gone through, well, I just have to clean the machine out.

[Handle this problem according to standard procedure.]

3. Just what is Tom's supervisor trying to accomplish?

[Get from group and place on board:]

To make Tom a safe worker and get production back to normal

4. What are the facts?

[Get facts from group and put on board briefly. See that these are included, but not necessarily in this order.]

Facts

Was a good worker
Quality and quantity down
Broke safety rule
Careless
Warned before
Talked back
Lost his girl
Felt nobody cared
Burrs on parts

[Check subheads of Step 1. USE CARD.]

[Be sure that you leave group with the realization that the supervisor got three very important facts because he talked with the individual to get opinions and feelings.]

5. [Consider Step 2, according to standard procedure.]

[Get possible actions from group.
Some may be—
Warn about safety rules.
Give penalty layoff.
Report bad parts.
Tell him losing girl isn't your fault.]

Weigh and decide

Possible actions

_____
_____
_____

[Test possible actions against objective and probable effect on individual—group—production.]

6. Now let us see what did happen in this particular problem.

[Continue to read the problem.]

Supervisor: I can see why that would cause you trouble. Suppose we go down and take a look at those parts. Now, I'm sorry about your tough luck. But I do thank you for helping me.

[Trainer Comment: Throughout, the supervisor had listened sympathetically to Tom, he had encouraged and helped him to talk about the things that were important to him. Now that he had reached something specific, bad parts, he's going to check that.

Later the supervisor comes back to his office and calls his own chief.]

Supervisor: Jones, can I come up a minute? I want to talk to you about the parts we're getting from the punch press department. They're not coming through clean. I have a good operator on our line, and it's interfering with his work and slowing down our output.

7. What were the additional facts that Tom's supervisor got by talking with Tom and getting his opinions and feelings?

[Point out on board THE ADDITIONAL FACTS:]

Lost his girl
Felt nobody cared
Burrs on parts

8. The supervisor looked at all the facts and he felt he had a complete story.

   He found out why Tom was off the beam.

   Doesn't this indicate that sometimes an addition of one more fact will preclude or suggest a possible action? Do you think we would have had the same possible actions if these facts had been missing?

9. What action did he take?

[Help group give supervisor's action.
Write this action on the board:—]

ACTION

Told Tom he was sorry
Asked Tom's help
Checked parts
Reported faulty parts

What facts did this supervisor use in arriving at this decision?

[Handle Step 3 as in the standard procedure.]

Let's look at Step 3.

Are you going to handle this yourself?

It was this supervisor's problem.

He had some responsibility to take some action.

Need help?

Yes, he got Tom's help—no outside help necessary.

Refer to supervisor?

To get good parts—but didn't tell him Tom's trouble.

Timing?

Tom's supervisor didn't lose any time in acting.

10. [Handle Step 4 as in the standard procedure.]

How soon do you think he'll follow up? More than once?

What will he look for?

Do you think Tom's supervisor will accomplish his objective?

Did this supervisor use the 4-step method up to now?

11. Conclusion to the Tom Problem.

You remember the purpose of this problem was to stress not only the importance of getting the facts, but also to see how this supervisor handled this problem in order to get personal opinions and feelings. You can see what might have happened if this supervisor had not decided to get more facts before he took his action.

Do you think Tom's supervisor was justified in getting him to talk about his personal affairs? This depends on the individual and the problem. This supervisor knew his individual well enough to talk with Tom.

Did *you* ever have a man go sour when something happened in his family? He brought what happened outside of work into the plant with him—just as Tom did. That's

why the supervisor has to concern himself with personal feelings.

Did you notice that when Tom's supervisor called his boss he didn't reveal the personal information he had about Tom? He could have said, "I have a jilted guy down here," but he said, "I have a good worker down here."

40 MIN. TO HERE

[Clear board, except steps]

ALLOW 5 MIN.

REMEMBER WE SAID THAT OPINIONS AND FEELINGS are hard to get. We all can learn and develop this skill. Once this skill is acquired it becomes a useful tool for a supervisor.

[Write on board:] **How to get opinions and feelings**

1. Just how did Tom's supervisor find out about Tom's opinions and feelings?

   His supervisor could have argued with Tom about its taking him half his time to turn off the switch. Is anything ever satisfactorily settled by an argument? Our first tip, then, is "Don't argue."

[Write on board:] **Don't argue**

2. It took some encouragement to get Tom to talk about what seemed important to him, didn't it? The supervisor had to help him say what was wrong. The tip then is to, "Encourage him to talk about what is important to him."

[Write on board:] **Encourage him to talk about what is important to him**

3. If you are telling a story and someone interrupts you, do you feel like continuing it? After Tom started talking did his boss interrupt him? Our tip is "Don't interrupt."

[Write on board:] **Don't interrupt**

4. Could the boss have spoiled everything by jumping to the conclusion that Tom was sore about money? The tip is, "Don't jump at conclusions."

[Write on board:] **Don't jump at conclusions**

5. The supervisor had a chance to make a couple of speeches, didn't he—on safety—on how lucky he was to get rid of the girl? You will notice he didn't do all the talking himself. The tip is "Don't do all the talking yourself."

[Write on board:] **Don't do all the talking yourself**

6. Was Tom's boss a good listener? If you want to get opinions and feelings you have to listen, don't you? Our tip is, "Listen."

[Write on board:] **Listen**

[Bring out to the group the importance of using these tips.]

45 MIN. TO HERE

[Clear Board—except Question and Steps.

Change question to "this supervisor" in place of "Tom's supervisor."]

ALLOW 1 HR., 10 MIN. SUPERVISORS' PROBLEMS.

1 HR., 55 MIN. TO HERE

[Handle 2 problems.
35 minutes each.
Standard Procedure.]

ALLOW 5 MIN. [MAKE SURE 3 PROBLEMS WILL BE PRESENTED AT NEXT SESSION.]

1. I'll bring in another problem at the next session.
2. Will all of you have one ready?

Now you can bring in a problem you want to size up to try to take some preventive action.

Or you can bring one that's on your hands right now.

Or perhaps you have just finished a problem we can consider.

But we do set up these requirements:

★ It must be something between you and the people
★ you supervise.

★ It must be a problem which you have to handle; not
★ someone else's job.

★ You must have the necessary information about the
★ employee or employees involved—age, length of
★ service, experience, etc.

..... and ..... brought in the kind of problems we have to live with. That's the kind we want.

3. Do all of you have a problem that you can tell us about? To practice our 4-step method?

[If any member of group says he does not have a problem, use the problem sheet again.]

2 HRS. TO HERE

[Remind the group that, to receive a certificate, each member must bring in a problem, participate satisfactorily, and attend all sessions.]

[Clear the board.]

BLACKBOARD GUIDE—TOM—PROBLEM No. 2

Just what is Tom's supervisor trying to accomplish?

To make Tom a safe worker and get production back to normal.

Facts

Was good worker
Quality and quantity down
Broke safety rule
Careless
Warned before
Barked back
Lost his girl
Felt nobody cared
Burrs on parts

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Weigh and decide

Possible actions

Warn about safety rules
Give penalty layoff
Report bad parts
Tell him losing girl isn't your fault

Action

Told Tom he was sorry
Asked Tom's help
Checked parts
Reported faulty parts

STANDARD PROCEDURE

1. Ask supervisor to tell problem.	Head of table. Does this involve you and somebody who comes under your direction? Have you taken action? Tell up to final action.
2. How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3. Get objective.	Get from supervisor: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4. Get Facts.	Supervisor first, as he recalls them offhand. Review subheads with supervisor — USE CARDS. Get additional facts from group — USE CARDS.
5. Weigh and Decide.	Fit Facts—Look for gaps and contradictions with group. Possible Action: What facts used?—From contributor. Check practices and policies with supervisor. Check objective first with group, then last with supervisor. Check probable effect on individual, group, production, with supervisor.
6. Balance of Case.	Facts used (from supervisor).
7. Check Step 3.	Subheads—with supervisor. Why?—How?—Timing?
8. Check Step 4.	Subheads—supervisor. When?—How often?—What?
9. Check Objective.	Supervisor.
10. Foundations (if applicable).	Supervisor.

(Thank Supervisor and clear board except question and steps.)

Job Relations—Session III

WEIGHING AND DECIDING

Before session starts, place on board:

Just what is this supervisor trying to accomplish?

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

ALLOW 5 MIN.

REVIEW 4-STEP METHOD.

1. Now do we all have our cards? Suppose we take a look at the 4-step method. In our last session the problem I presented about Tom who lost his girl stressed the importance of getting the facts, with particular reference to personal opinions and feelings.

   We looked at the way a supervisor got the facts in order to make a good decision. It takes time to do this, but in the long run it does save time, doesn't it?

2. It is interesting to notice that a similar method is used by professional people. For instance, let us see how a doctor handles his problem.

   Step 1—Does the doctor get the facts?

   Record—personal history—blood pressure—temperature.

   Rules and customs—medical knowledge—practice—ethics.

Talk—to get more facts, confidential.

Opinions and feelings—very important.

Step 2—Diagnosis.

Fit facts together—assemble facts.

Consider bearing on each other—symptoms.

Possible actions—medicine, operate.

Check practices and policies—must comply with laws.

Effect on individual—group—contagion.

Don't jump at conclusions—careful diagnosis.

Step 3—Treatment.

Take action—prescribe, operate.

Handle yourself?—his specialty.

Help in handling—nurse, technician.

Refer to supervisor—more experienced doctor, specialist.

Doctors don't lose face in doing this.

Timing—importance of timing.

Don't pass the buck.

Step 4—Check results—X-ray.

How soon—depends on case.

How often—it differs.

Watch for—changes in condition.

This method we have been talking about works in other professions, doesn't it? The doctor in an emergency of life or death still takes time for all these steps.

3. Now let's turn the spotlight on Step 2 of our method, Weigh and Decide.

   Good decisions must have a good foundation.
   You must have the facts.
   They must be weighed.

5 MIN. TO HERE

[Underline Step 2.]

2. Weigh and decide

ALLOW 30 MIN.

PRESENT THE SHIPYARD PROBLEM.

1. Let's take a look at something that happened in a shipyard and particularly at the decision the supervisor made since we are today stressing Step 2.

[Tell the opening of the problem.]

The electrical shop supervisor in a shipyard told a man to get some tools. The man said he couldn't—he'd left his checks at home. So the supervisor reminded him he could get them by signing for them—the man refused, said he didn't like it in the shop anyway, and he wanted to go back to outside work. The supervisor was pretty sore about the man's refusal to get the tools.

This man was an oldtimer. He had always been on outside work, but he had hurt his foot, so, as soon as he was able to fill a job in the shop, he was transferred into the shop at the same rate so he could get full pay instead of part-time pay under workmen's compensation. His foot had been healed for some time, and he had asked when he was going back to his outside job. But the shop was busy, so the supervisor kept the man. He had been uncooperative ever since he came into the shop; now he flatly refused to do some work. People in the department were watching to see how it would come out.

The supervisor decided it was time to take action.

2. [Comment on how problem came up—ran into, but supervisor had warning—oldtimer uncooperative in shop.]

3. [Get the objective from group and put on board:]

Get the job done without upsetting the department

4. [Continue with standard procedure to get these facts, but not necessarily in this order. Place on board.]

Facts

Oldtimer
Foot hurt
Inside for full pay
Foot healed
Asked transfer outside
Shop busy
Uncooperative inside
Refused to get tools
Department watching
Supervisor sore

[Review the card, subheads Step 1.]

5. [STEP 2.—FOLLOW STANDARD PROCEDURE.]

[Get possible actions from group. Some may be:

Layoff
Transfer
Fire]

Weigh and decide

Possible actions

_____
_____
_____

[Test possible actions against objective and probable effect on individual—group—and production.]

6. Now let's finish the problem and see what actually happened.

The supervisor fired the oldtimer. The oldtimer protested to the union and his case was taken up. The union proceeded to get additional facts—facts which could have been obtained by the supervisor.

The oldtimer had almost twenty years of satisfactory service out in the yard. He liked to work outside, although it meant being out in all kinds of weather. He did not like shop work. He did not know that he had been brought into the shop to increase his earnings over what he would have received from compensation. The yard supervisor was not even questioned about the man's long service outside.

Eventually the workman was reinstated in the yard on his old job with back pay.

7. [Get additional facts from group and list on board under facts.]

Facts

Long O.K. service outside
Liked outside work
Not advised why inside—pay

8. [Continue with standard procedure.]

[Write on the blackboard:]

Action

Fired oldtimer

[Have group identify the facts which the oldtimer's supervisor used when he came to the decision of firing the oldtimer.]

[Also have group identify the facts which were not used by the oldtimer's supervisor in making this decision.]

Does this make a reasonable case for the oldtimer?

Does this indicate to you that, if the supervisor had intelligently weighed all the facts which he had, he would not have fired the oldtimer?

[Stress to the group that the supervisor gave weight to only a very few of the facts which he had as a basis for his decision.]

Other supervisors, by giving more weight to the facts which he missed, might arrive at other decisions, such as those already listed on the blackboard under Possible actions.

9 [Comment on Step 3 subheads—Standard Procedure. Have group follow cards.]

Handle yourself?—This was his problem.

Help in handling?—Didn't ask for help.

Refer to supervisor?—Didn't refer to boss.

Timing of action?—Was this the time to take action?

10. [Comment on Step 4 subheads—Standard Procedure. Use cards.]

How soon? How often?

This supervisor did not check up on the results of his action. He evidently thought that when he fired the old-timer that the problem was solved.

Changes in attitudes and relationships?

This supervisor lost standing with the individual, the group, and his management.

11. [Check objective.]

12. [Use foundation points as in standard procedure.

Hit hard on "Tell People In Advance About Changes That Will Affect Them" and "Make Best Use of Each Person's Ability." (Prevention)]

13. It is interesting to note in this problem that even though the supervisor did not have all the facts, nevertheless he did not do a good job of weighing the facts which he had.

Perhaps if he had given more weight to several seemingly unimportant facts, he would not have taken the action which he did.

35 MIN. TO HERE [Clear the blackboard except question and steps.]

ALLOW 1 HR. 25 MIN.

SUPERVISORS' PROBLEMS.

[Handle 3 problems
2 problems 30 min. each
1 problem 25 min.
Standard Procedure]

MAKE SURE THREE PROBLEMS WILL BE PRESENTED AT NEXT SESSION.

2 HOURS TO HERE

[Re-emphasize what you mean by a problem; how they come up. Remind group that, to receive a certificate, each supervisor must bring in a problem, participate satisfactorily, and attend all five sessions.]

[Clear the board.]

BLACKBOARD GUIDE—OLDTIMER—PROBLEM No. 3

Just what is this supervisor trying to accomplish?

To get the job done without upsetting the department

Facts

Oldtimer
Foot hurt
Inside for full pay
Foot healed
Asked transfer outside
Shop busy
Uncooperative inside
Refused to get tools
Department watching
Supervisor sore
Long O.K. service outside
Liked outside work
Not advised why inside—pay

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Weigh and decide

Possible actions

Lay off
Transfer
Fire

Action

Fired oldtimer

STANDARD PROCEDURE

1. Ask supervisor to tell problem.	Head of table. Does this involve you and somebody who comes under your direction? Have you taken action? Tell up to final action.
2. How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3. Get objective.	Get from supervisor: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4. Get Facts.	Supervisor first, as he recalls them offhand. Review subheads with supervisor — USE CARDS. Get additional facts from group — USE CARDS.
5. Weigh and Decide.	Fit Facts—Look for gaps and contradictions with group. Possible Action: What facts used?—From contributor. Check practices and policies with supervisor. Check objective first with group then last with supervisor. Check probable effect on individual, group, production, with supervisor.
6. Balance of Case.	Facts used (from supervisor).
7. Check Step 3.	Subheads—with supervisor. Why?—How?—Timing?
8. Check Step 4.	Subheads—supervisor. When?—How often?—What?
9. Check Objective.	Supervisor.
10. Foundations (if applicable).	Supervisor.

(Thank Supervisor and clear board except question and steps.)

Job Relations—Session IV

TAKING PREVENTIVE ACTION AND CHECKING RESULTS

[Before session starts, place on board:]

Just what is this supervisor trying to accomplish?

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

ALLOW 30 MIN.

PRACTICE ON STEPS 3 AND 4.

1. [Make appropriate opening comments.]

2. By the use of the Tom problem in Session II we discussed securing the facts through getting personal opinions and feelings.

Using the Oldtimer problem in our last session we practiced on Step 2, "Weigh and Decide."

In this session we are going to hit hard on Steps 3 and 4, "Take action," and "Check results."

[Underline Steps 3 and 4.]

3. Take action
4. Check results

Now I am going to present a problem which shows how a supervisor took action which was preventive, and how he checked the results of that action.

3. Because of expansion, scarcity of labor, and many other reasons, changes are taking place in organizations throughout the country.

There are many different types of changes such as:

change in shift
change in arrangement of benches or machines

This problem illustrates ONE KIND of change.

4. [Tell the opening of the problem of the woman supervisor.]

The plant superintendent called Jim White, the General Foreman, into his office and told him that the management had decided to use women supervisors as well as men. The superintendent told Jim to fill supervisory vacancies with women on the basis of seniority and ability, as was the rule with men.

He also told him that both men and women supervisors were to have the same authority and the same opportunity for advancement. Jim considered this very carefully and reviewed the following facts:

One supervisory position had to be filled, and no qualified men were available. All men capable of supervisory responsibility had been upgraded or had been taken into the armed forces. Most of the new employees who had come to the plant in the last 18 months were women.

Jim selected the best qualified woman for the job. As she was to be the first woman supervisor in the plant, Jim anticipated trouble. This was a major change. Some men supervisors might resent it. Also some men and women employees might not like having a woman in authority. More women supervisors would probably be appointed later.

This was the problem Jim faced.

Should he do anything about it?

5. [Discuss how this problem came up—saw it coming.]

6. [Obtain objective—use standard procedure.]

[Get from group and place on board:]

To get woman supervisor accepted

7. [Go through Step 1—Get Facts—Use standard procedure.]

[Get facts from group—list on board, but not necessarily in this order.]

Facts

No women supervisors before
Rule—seniority—ability
Same authority and opportunity
One job open
No qualified men
Woman selected
Anticipated trouble—supervisors, employees

[Review the subheads Step 1—Use standard procedure.]

8. [Go through Step 2—use standard procedure.]

List possible actions which group suggests. They may be:

- mass meeting
- notice on bulletin board
- appoint her—say nothing

Weigh and decide

Possible actions

9. Check all possible actions against objective, and probable effect on individual, group, and production.

10. Tell balance of problem.

Jim thought the situation over pretty carefully. Then he talked individually with his supervisors and also he talked individually to those of the operators who were looked on as natural leaders. He gave them the facts and asked for their help.

There was quite a commotion—some people said they wouldn't stand for it. Jim gave them a chance to do their talking and blowing off. Eventually the workers agreed.

By the time the new supervisor took over her work the outburst was over and the people cooperated in accepting her. Before she went into her department Jim talked with her. He told her that she was going to be the first woman supervisor in the plant and that she might run into some difficulty and that she must not be easily offended. He asked her to do her best because it would not only affect her but also other women supervisors who would be appointed later.

During the first day on her new job, Jim talked with the supervisors and later in the day with the natural leaders he had talked with before. They informed him that apparently the new supervisor was accepted and everything was O.K. Jim, to be sure that his preventive action was effective, kept in close touch with the situation for some time.

11. [Get supervisor's action from group and list on board:]

Action

Gave the facts in advance, to supervisors — natural leaders
Asked their help
Let them blow off steam
Asked cooperation of new supervisor

What facts did Jim consider?

12. [Discuss Step 3, TAKE ACTION—Standard Procedure—Use Cards. Get from group or make the following points yourself:]

Jim handled this himself—why?

Jim felt it was his job as General Foreman, and he was best qualified to handle it.

Did Jim get help? What advantage was it?

Jim got help from supervisors and natural leaders because they were in a position to help him get acceptance of the change.

Should Jim have referred this to his supervisor?

Jim's supervisor had referred it to him.

In what way did Jim's timing contribute to the success of his action?

Jim allowed just the right time for them to blow off steam and cool off before introducing the woman supervisor.

Could Jim have passed the buck? How?

Could have blamed management for the idea.

13. [Discuss Step 4, CHECK RESULTS. Standard Procedure. Use Cards.]

How soon? Why was it important for Jim to check immediately?

This change affected the whole plant.

How often? Jim kept in close touch with the situation. Why?

Jim must check closely until he is certain the change is accepted.

Did Jim check effect upon attitudes, relationships, and output? What did he look for?

Good attitude of fellow supervisors indicates acceptance of change.

Good relationship with employees in her department proves her acceptance.

Did Jim accomplish his objective? How did he know? He used Step 4.

14. What foundation points were used in this problem?

Bring out Foundations 3 and 4:

"Tell people in advance about changes that will affect them."

"Make best use of each person's ability."

30 MIN. TO HERE [Clear the board except question and steps.]

ALLOW 5 MIN.

DISCUSS EFFECT OF CHANGE.

Let's take a look at the importance of preparing for the introduction of changes which affect individuals and groups.

Making that change in Jim's department was something new. Individuals had personal feelings about how this change would affect them.

People generally get used to doing things in a particular place or in a certain way. We are all inclined to question whether it is necessary to change the things we have become accustomed to.

Do workers resist changes which affect their work place or tools or the people they will be working with or next to?

This, then, is a place where one of our foundations for good job relations comes in—tell people in advance about changes that will affect them.

Preparing the way for a change is surely an equally good thing to do when changes in payment plans, hours, locations of the department, new machinery, new products, or material are about to be introduced.

The first boy put into a group of oldtimers or a woman on machines that have always been run by men are typical of problems supervisors can do something about in advance.

Preparation of this sort prevents problems from arising later, saves time, and improves relationships.

35 MIN. TO HERE

But even though the way has been prepared for the change, it is still wise to check the results to find out how the individual or the members of the group accommodate themselves to the change.

ALLOW 1 HR., 25 MIN. SUPERVISORS' PROBLEMS.

2 HRS. TO HERE

[Handle 3 problems
2 problems—30 minutes each
1 problem—25 minutes
Standard procedure]

[Clear the board.]

BLACKBOARD GUIDE—WOMAN SUPERVISOR—PROBLEM No. 4

Just what is this supervisor trying to accomplish?

To get woman supervisor accepted.

Facts

No women supervisors before
Rule—seniority—ability
Same authority and opportunity
One job open
No qualified men
Woman selected
Anticipated trouble—supervisors, employees

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Weigh and decide

Possible actions

Mass meeting
Notice on bulletin board
Appoint her—say nothing

Action

Gave facts in advance—supervisors and natural leaders
Asked their help
Let them blow off steam
Asked cooperation of new supervisor

STANDARD PROCEDURE

1. Ask supervisor to tell problem.	Head of table. Does this involve you and somebody who comes under your direction? Have you taken action? Tell up to final action.
2. How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3. Get objective.	Get from supervisor: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4. Get Facts.	Supervisor first, as he recalls them offhand. Review subheads with supervisor — USE CARDS. Get additional facts from group — USE CARDS.
5. Weigh and Decide.	Fit Facts—Look for gaps and contradictions with group. Possible Action: What facts used?—From contributor. Check practices and policies with supervisor. Check objective first with group, then last with supervisor. Check probable effect on individual, group, production, with supervisor.
6. Balance of Case.	Facts used (from supervisor).
7. Check Step 3.	Subheads—with supervisor. Why?—How?—Timing?
8. Check Step 4.	Subheads—supervisor. When?—How often?—What?
9. Check Objective.	Supervisor.
10. Foundations (if applicable).	Supervisor.

(Thank Supervisor and clear board except question and steps.)

Job Relations—Session V

A SUPERVISOR'S OTHER WORK RELATIONSHIPS

[Before session starts, place on board:]

Just what is this supervisor trying to accomplish?

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

ALLOW 50 MIN.

SUPERVISORS' PROBLEMS.

1. [Make appropriate opening comments.]

50 MIN. TO HERE

2. [Handle two problems—25 min. each.]

ALLOW 25 MIN.

1. [25 minutes is allowed here if necessary for the handling of the tenth supervisor's problem, or an additional problem from the group. If this time is not needed, go right on with session.]

[THANK GROUP FOR INTEREST AND PARTICIPATION.]

50 MIN. OR 1 HR. 15 MIN. TO HERE

[Clear board.]

ALLOW 10 MIN.

REVIEW OF JOB RELATIONS CARD.

1. Are there any questions about the 4-step method for handling a supervisor's problem?

2. [Review foundations for good relations briefly.]

   All people like to be treated in accord with foundations of good relations. We all can do something about these things. Putting these foundations to work on the job, day by day, will prevent many problems from developing.

   [Refer to problem sheet.]

3. However, when problems do come up, we have a 4-step method to help us handle these problems.

   This method will help you get better results, only if you USE it!

4. [Review 4-step method including sub-heads, briefly.]

5. [Review tips for getting personal opinions and feelings. Try to get as many as possible from group.]

[Put on board:]

How to get opinions and feelings

Don't argue
Encourage individual to talk about what is important to him
Don't interrupt
Don't jump at conclusions
Don't do all the talking yourself
Listen

6. Considering the importance of people in the situation and knowing what is important to the individual person is not a matter of right or wrong or just or unjust. It is simply a common-sense approach to good supervision.

   This is one of the hardest parts of the supervisor's job—it may be thought to take too much time, but day-by-day use of this skill of dealing with people will save time in the long run.

   The supervisor who knows his people well enough to build them into a smooth operating group is making his important contribution to war production.

1 HR. OR 1 HR. 25 MIN. TO HERE

[Clear board.]

ALLOW 10 MIN. CLINCH ACCEPTANCE OF THE METHOD by showing advantages to each supervisor.

1. What do you think *you* will gain from using this method? How will it help you personally in your department?

[Without too much insistence, bring out through discussion and place on board such points as:]

More confidence in ability to handle people
Better standing with those you supervise
Better standing with your boss
Fewer headaches
Less criticism
Organized plan to follow

[If necessary, use these questions:]

Will this help you to handle some problems yourself—instead of passing them on to the boss?

If you get the whole story before you make decisions, do you think it will improve relationships in your department?

1 HR.
10 MIN. OR
1 HR.
35 MIN.
TO HERE

Will it help to have a regular method to follow? How?

[Clear the board.]

ALLOW 15 MIN.

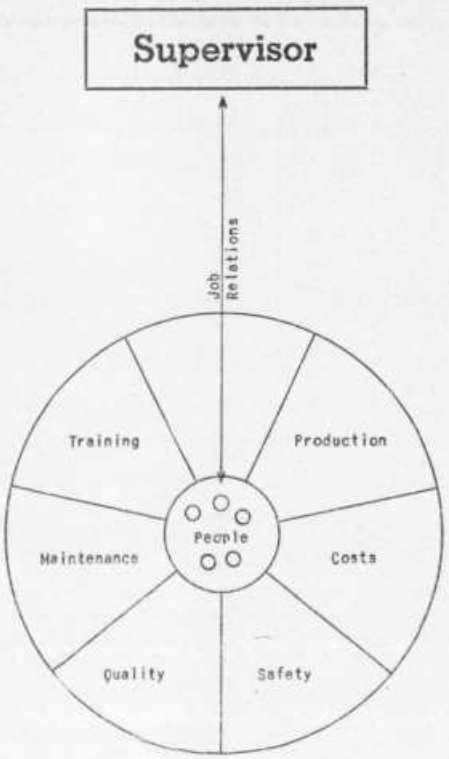
DISCUSS SUPERVISOR'S OTHER RELATIONSHIPS.

[Show how he is linked to fellow-supervisors, to service and staff departments.]

1. [Quickly re-develop the "Supervisor's Job" chart from Session I.]

Let's go back to the chart we developed in the first session.

Develop on board the following supervisory chart:



So far we have been looking at the supervisor's relations with people whose work he directs.

Is this the only kind of relationships you have?

What other people in the plant do you work with?

Ask these questions if necessary:

Who gives you your instructions?

Where do your materials come from?

Where does your production go?

What other people do you call on for help?

Do any people who don't work in your department ever come in it?

Do you work with any union representatives? These union representatives work with these people too.

If there is no union, do not use this question or place "Shop Steward" on the chart.

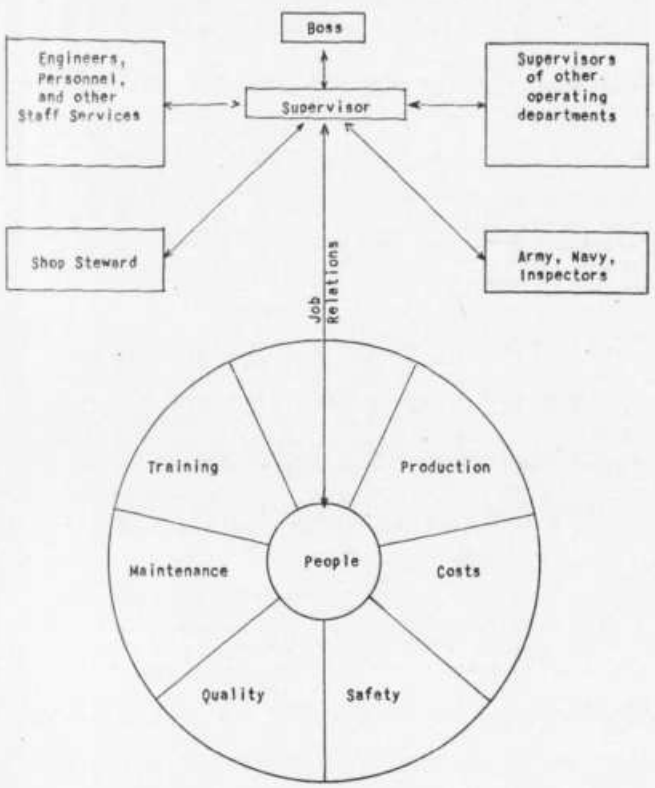
Add names, boxes, and Job Relations lines.

Each time a Job Relations line is placed on the board, be sure to touch on the fact that this relationship also goes both ways as indicated by the arrowheads.

Also ask "Is this relationship important to the supervisor?" and "Is this relationship important to the whole plant?" The answer in both cases is "Yes."

Then ask "What can he use to assist him in maintaining this strong relationship?" The answer, of course, is "The foundations and 4-step method." This should be brought out from the group.

The completed chart will appear like this:



The supervisor is in touch with all these people and departments.

2. We have said that *the supervisor gets results through people.*

Everything you do as a supervisor depends on people.

How you get along with people is a measure of your standing.

Does your boss think it's an asset for a supervisor to have the reputation of working well with people?

With all these people it will be a good idea to remember first of all that they are all people and must be treated as individuals.

And we must realize that there is a Job Relations line between the supervisor and all these other people on the chart—and if we are to keep good relations with them we must use these foundation points.

Before you take any action—before you go to another supervisor—or to your boss—you'll want to make certain you've got the facts.

And be sure you have the whole story.

That you "Weigh and decide" and not jump at conclusions.

That you "Take action" and not pass the buck.

And you'll always come to this final test when you "Check results"—

1 HR.
25 MIN. OR
1 HR.
50 MIN.
TO HERE

Did your action help production?

[Leave chart on board.]

ALLOW 10 MIN. CREATE CONVICTION that each will use this skill.

1. Maybe sometimes you wonder whether what *you* do, does help production.

2. [Ask each man how many people he supervises *directly*.]

[Write the figures on the blackboard, beside the chart.]

[Total them—put the figure in center of chart ABOVE *"People."*]

That many people *do* influence war production.

And what *you* do, influences those people.

3. [Emphasize the strategic position of the supervisor—the supervisor is the officer in the Army of Production.]

Everyday relationships count.

4. ★ We are all working on the same job—turning out war ★ production for the men in the armed forces.

★ We all have one customer—Uncle Sam.

1 HR. 35 MIN. OR 2 HRS. TO HERE

★ One objective—to win the war.

[END HERE NO MATTER HOW EARLY.]

[Clear the board as members of group are leaving.]

STANDARD PROCEDURE

1. Ask supervisor to tell problem.	Head of table. Does this involve you and somebody who comes under your direction? Have you taken action? Tell up to final action.
2. How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3. Get objective.	Get from supervisor: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4. Get Facts.	Supervisor first, as he recalls them offhand. Review subheads with supervisor — USE CARDS. Get additional facts from group — USE CARDS.
5. Weigh and Decide.	Fit Facts—Look for gaps and contradictions with group. Possible Action: What facts used?—From contributor. Check practices and policies with supervisor. Check objective first with group, then last with supervisor. Check probable effect on individual, group, production, with supervisor.
6. Balance of Case.	Facts used (from supervisor).
7. Check Step 3.	Subheads—with supervisor. Why?—How?—Timing?
8. Check Step 4.	Subheads—supervisor. When?—How often?—What?
9. Check Objective.	Supervisor.
10. Foundations (if applicable).	Supervisor.

(Thank Supervisor and clear board except question and steps.)

NOTES

Job Relations Reference 1

JOB RELATIONS IN THE FIELD

The following policies and procedures, which are concerned chiefly with quality control of Job Relations, are stated for the Job Relations Trainer's guidance and information.

1. Job Relations is to be put on *exactly* as outlined in the manual.

2. During the first 10-hour program put on by any Job Relations Trainer he will be visited by an Institute Conductor or a Quality Control man for at least one session and preferably two.

3. Each Job Relations Trainer may be visited in sessions regularly thereafter once a month.

4. No Job Relations Trainer shall remain on the active list unless he puts on at least one 10-hour program in 90 days.

5. All Job Relations Trainers are expected to attend coaching sessions at the request of the T. W. I. District office.

6. Job Relations sessions shall be limited to groups of 10 supervisors.

7. In order to be certified, participants must attend all 5 sessions in their logical sequence, participate satisfactorily, and present a problem.

8. For certification purposes, we will count the supervisor who brings an unsolved problem and, as it is being handled, decides he does not have all the facts, thereby shutting off further handling of the problem, because there is evidence that this person does understand the basic step of Job Relations. It is, of course, best to have him present the rest of the facts at a later session.

Job Relations Reference 2

TIPS FOR TRAINERS

Opening the Sessions

Have conference room ready and be there *ahead* of scheduled time—if you start *on time,* the group will make an extra effort to be prompt.

Urge some member of top management to introduce you to each group. Their appearance and indorsement of the program are important.

The 10-hour sessions of Job Relations are held so that supervisors will learn and practice the 4 steps and the application of the foundations. These sessions are not for the purpose of entertainment or morale building. Beware of "interesting" sessions.

Start at once and continue to emphasize that what we are doing is getting practice in the use of the method. In this practice we arrive at possible actions but they are not to be construed as decisions. (We, in analyzing and applying the procedure, are not as close to the problem as the supervisor who actually must make the decision. We can definitely obtain experience in the use of the method by applying the method to another's problem. But, generally, any possible actions arrived at are not as reliable as those that are obtained through the use of the method by the supervisor who must actually make the decisions.)

Avoid a classroom atmosphere and above all do not be an expert. You are not running a one-man personnel relations bureau.

Don't take too much time to give your own experience and background. Your purpose is to set a pattern for the members to use in introducing themselves.

Stress on Method

Remember to follow and use the card. See that the members of the group follow and use the card in all discussions.

Constantly check yourself to see that you are not laying too much stress on something which particularly appeals to you at the expense of other points.

Show your enthusiasm for this program. Enthusiasm is contagious. After several groups, Job Relations may become an old story to you. Remember you are setting the standard for the group. The program can be no better than the trainer. Continue to be thorough at all times. A sloppy job by a trainer usually does more harm than good.

Bring out to the group the reasons for throwing the problems against the plan—to give them practice in using it. We are trying to acquire a skill. Your job during the ten hours is to sell the plan to all ten supervisors and give them basic training in its use.

Don't just read from the Manual—Talk informally with feeling and expression. Make it live! Don't lecture or preach.

Working with the Group

Don't direct your remarks and questions to a favored few—get all members to participate.

Practice good relations with your groups. Don't argue—winning an argument may not convince the other fellow.

Don't try to imitate the personality of your Institute Conductor. Put your own personality into your performance, but stick to the ideas and thoughts outlined in the Manual.

Don't put yourself on a pedestal above the group. Be one of them. You will earn their respect if you do a good job putting on the sessions as outlined in the Manual.

Be alert when a member gives you an answer even when you are doing something else. Remember it and come back to him. Be constantly on the watch for contributions from individuals in the group. Allow them to express their views and don't try to rearrange or distort their contributions to suit some thought or idea you have in mind.

Be constantly on the lookout for background material contributed by the group with reference to the foundations. If necessary, ask members if they know of any instances where the foundations, if applied, would have prevented a problem from arising.

In an office group, particularly, supervisors should be told that they do not need to take notes and they should be specifically directed *not* to take notes on other supervisors' problems.

Handling Supervisors' Problems

Reference 3, the "Standard Procedure for Handling a Supervisor's Problem," is the final authority. (For the convenience of the trainer, a condensed form appears at the end of each session.) The steps in the procedure are to be followed *exactly*. They are designed to give the individual supervisor more practice. Be sure to get recognition of how the problem came up and the importance of preventive action. It is important to establish a real objective—see that the supervisor does not look just at the handling of the problem, but at the overall effect or results he wishes.

Avoid constant use of the *same* objectives *repeatedly* in all supervisors' problems. Vary them and make appropriate to the problem. Help the supervisor reason out his objective but don't dominate his thinking.

Make "Fact" statements short and to the point.

Remember that all check-points in Step 2 are to be used. The objective, because it is used first, is no more important than the rest of the points.

When someone suggests a broad possible action like "get him interested" ask a "How" question in order to bring the possible action down to something more specific. Otherwise questions and answers are ambiguous when we test against possible actions.

If a supervisor claims he doesn't make decisions, point out that a recommendation is a decision. If a supervisor has a record of making good recommendations, then any that he makes are apt to be considered seriously by his superiors.

Don't let the group give you just any possible action. We want real thinking here. Use "What would you do based on these facts if this problem were dumped into your lap?"

Be sure the members of the group understand that they are not being led to a decision. Decisions cannot be made in a conference room. We are never sure we have *all* the facts and we do not know the individuals concerned.

Again, the fact that nothing is done is often a decision. When a problem arises the supervisor sometimes decides not to take any action or that he should report the matter to his superiors. The fact that he decided to do nothing himself may be an important decision.

When a member of the group asks you a question pertinent to the supervisor's problem, refer it to the supervisor instead of trying to answer it yourself.

Don't indicate by your words or actions which possible action you think should be used. A trainer's function is to guide the thinking of the supervisor and the group through our various steps. We are not making a decision for the supervisor, but drilling on a method which each supervisor can use to arrive at his own decision on what action he should take. The supervisor should know the probable effect of any action on his objective, the individual, the group and production better than the trainer or any other member of the group.

Neither you nor the group is "solving" the supervisor's problem. We are developing our skill in using the foundations and the 4-step method. This is the tool that the supervisor can use to solve his own problems.

Don't expert (express personal opinions) by saying, "I think." Questions tempting you to expert should be redirected to the members of the group. A good trainer gets the group to do most of the thinking according to the pattern set oy the Manual. Job Relations is designed to get *supervisors* to think and reason according to a pattern as a basis for sound actions or as an aid to sound action.

Blackboard Work

Don't obstruct the view of the blackboard when discussing blackboard work.

Keep these three things in mind when at the board:

1. Write legibly.
2. Stand at the side of your work as much as possible.
3. Talk while writing.

Do not change supervisors' own words unless necessary to avoid highbrow phrasing. However, facts should be briefed on the board. Try whenever possible to get the sense and the meaning of the facts in from 3 to 5 words. Then check

to make sure of meaning but high-brow phrasing must be avoided. If someone gives AS A FACT "emotional instability" or "social maladjustment" make it specific. The facts—not their interpretation—are to be put on the board. Ask the supervisor to tell you what instances make him say that, and put on the board some specific thing like "had hysterics in office."

Make all blackboard work neat and readable. Talk or ask questions while at the blackboard in order to hold the group's attention.

Describing Practice

In the last 15 minutes of Session I spend some time enlarging on the procedure that will be followed in handling problems; explain that each supervisor will come to the head of the table and simply state the facts of the case. The trainer will place them on the board and the group will get experience in using the 4-step method. Emphasize that no comments or criticism will be made. It is important that the supervisors realize that they will not be criticized.

Emphasize at the end of Sessions II, III, and IV that to receive a certificate each supervisor must present a problem. Now that they know what the problems actually are, the regulations about certification mean something.

If people present problems which do not involve the direct relationship with someone supervised, the objective is apt to turn out to be of the "either or" or "whether or not" variety. The method applies in horizontal relationships, but for group practice we want to have a real objective to shoot at and therefore we want direct supervisory relationships.

If supervisors say they have no problems and if they really are supervisors, ask them whether they have been doing some preventive work to keep problems from arising. This is particularly useful during Session IV when the trainer's problem has illustrated how a supervisor used both the foundations and the 4-step method to keep department conditions smooth and prevent problems from arising.

The Manual

A typographical code has been used to show whether material is:

to be quoted

to be presented in trainer's own words

to be put on the board

a direction to the Trainer

This code immediately precedes Session I (p. 12).

Follow the suggested timing for each section. Experience has shown that the time indicated is needed to get the point over. If a particular section takes longer or shorter time than is indicated in the manual, then the timing gives you some idea as to how much you are ahead or behind. Start each session on time and close on time.

After each session you conduct, go over the manual and the problem handling to check yourself on omissions or failures to get a particular point over to the group. Keep studying your Manual including the references. The Institute only gave you a start. Familiarity with the content of the Manual will improve your confidence and effectiveness as a trainer. If you are not sure of your interpretation of any section of the manual, check with the Job Relations men in the T. W. I. District Office.

Be very careful that any remarks you make supplementing the manual pertain to a particular paragraph in the manual. In other words, thoroughly analyze each paragraph or sentence, being sure you know what the meaning is. It is a common fault for trainers, in trying to supplement the manual, to be sidetracked and then have difficulty in getting back on the beam.

"Following the manual" does not mean sitting down and reading it. *Learn it*—Then check yourself constantly. When there is board work to do, push your chair under the table and stay on your feet. Lean on the back of your chair to look at the manual but do not go back to your seat during the chart work in Sessions I and V or during the blackboard work on a problem.

Follow your Manual. Omissions, overemphasis, or foreign material may lead you into trouble. Do not mark up the manual. Follow it exactly.

Job Relations Reference 3

STANDARD PROCEDURE FOR HANDLING A SUPERVISOR'S PROBLEM

1. Ask supervisor to come to head of table and stay there until the problem handling is completed.

   Ask supervisor—"Does this problem involve you and somebody who comes under your direction?"

   (Under no circumstances permit supervisor to use a hypothetical problem or one in which he was not involved as a supervisor.)

   Say—"Have you taken action on your problem?"

   If the answer is "Yes," have him tell his problem up to but not including final action.

   To keep him from telling what final action was, make a simple statement as to the reason for stopping. The purpose is to get better group participation—yet to give the supervisor the full benefit of his practice problem. Inform the supervisor that he is to tell the group about the incident or situation that made him realize he had a problem on which he had to take action, plus any fact-getting steps he then went through, but to stop before he gives any interpretation of the facts or mentions any decisions or actions.

   Under no circumstances, interrupt the man, even to keep him from telling the final action. If he generalizes, let him alone (unless the problem is very long) but when he finishes make some such remark as "you say this is always happening—let's take just one instance." In problems involving large numbers of people try to reduce the problem to what involves only one person.

2. After he tells his problem, ask the supervisor in which one of the four ways this problem came to his attention (or comment on it, yourself).

   a. You sensed a change in your department.

      (EXAMPLE: Found changed relation or break in usual set-up.)

b. You anticipated a change in your department.

(EXAMPLE: You know a change is coming and want to prepare for it.)

c. This one came to you.

(EXAMPLE: An individual made a request or protested.)

d. You ran into this one.

(EXAMPLE: It just happened.)

The examples stated under a, b, c, d above are to be used only as necessary. Should the supervisor question what is meant, the purpose of bringing out how problems arise is to make supervisors more aware of the preventive work that may be done particularly as regards *a* and *b*.

STRESS *a* and *b* at every opportunity, pointing out that they are in the preventive areas. To vary this procedure after handling several supervisors' problems, you might ask any one of the group for the four ways that problems arise.

3. Ask supervisor: "Just what are *you* trying to accomplish?"

(Do not erase this question when clearing the board at the conclusion of the first supervisor's problem. It will speed up your work if you do not have to rewrite it.)

The objective is something to shoot at. It may be difficult to determine. It may have to be changed in the course of handling the problem.

Help the supervisor to state his objective—but do not force him to accept someone else's statement. Question the objective if it seems short-sighted or mistaken.

Use of the following questions will be helpful:

What makes this a problem?

What do you want to have happen here?

What effect is this having on production?

Are any other people in the department concerned?

What results do you want to get out of this?

If the supervisor gives as his objective one that appears to be inadequate, such as "to discipline Joe," help him to get a long-range view by asking "why" in order to get him to see that the accomplishment he wants in the end is "to have Joe on the job regularly."

Get agreement from group that supervisor has chosen exactly what he is trying to accomplish. The following questions may be helpful:

Do you see exactly what he is aiming at?

Do you "get" the objective?

Would you have the same one?

What would you have in mind?

Do not write the objective given by the group on the board unless the supervisor is in agreement. The purpose of asking the other supervisors to participate is to get their thinking and give the supervisor telling the problem the benefit of their thoughts.

4. Ask supervisor for important facts and list them on the board as given by him. Do not number the facts. (Your board work should be brief but accurate. Write his statements in three or four words.)

Do not let this board work DRAG. Help the supervisor recall facts he has already mentioned. Putting down the facts is not a memory exercise. Suggest them. However, he is the referee—do not change or interpret his facts.

USE THE CARD FROM HERE ON OUT.

Say—Let us look at our cards.

Make sure that everybody in the group is looking at his card before proceeding. Direct the questions at supervisor.

Ask—Have we reviewed the record and do we have those facts on the board? Do not let this go on a "yes" or "no" answer.

Go through each sub-head in the same manner. Find out what facts were obtained by talking with the individual to get opinions and feelings. Show them on the board. Apply the "Tips for getting opinions and feelings" if appropriate. Ask why the worker did what he did.

This procedure may help get additional important facts and may preclude "talk with him" as a possible action in Step 2. Put additional facts, supplied in answer to group's questions, on board. Do not separate them from the previously listed facts by a dotted line or space.

Ask the supervisor: Are these all the facts needed for a decision?

If the supervisor who is presenting the problem says he does not have all the facts and if he has not yet taken action, the steps that will be taken to get more facts may be discussed. They will not be put on the board and there will be no discussion of possible actions or any other part of Step 2.

If the supervisor who is presenting the problem says he has already taken action, and during the discussion says that he did not have all the facts, handling of the problem continues.

Ask the supervisor: Do you want the group to pitch in now?

Ask group: Do you want to ask the supervisor any questions about this problem?

Ask group: *If you were in the position of this supervisor, would you want any additional facts?*

If facts that seem trivial are suggested, you may want to ask the supervisor—

Is that fact *important* in helping us to come to a decision in this problem?

By doing this, many times supervisor will wash out irrelevant facts. At this time you can as part of the group ask questions about the problem but do not do this if group is working readily on these points.

All of the following information will probably not be needed in any one problem but the Trainer may need to ask the following "smoke-out questions" in the vein of—do you need to know—, would it make any difference if —?

Employee's job—just what he does

Time on present job and length of service with company

Work and training background before coming with company

Present working environment

Work record: production, quality, housekeeping, absence, etc.

What (if any) recent changes have been made in the working conditions of the department which may affect the problem?

What is the working relationship between employee and foreman, from the employee's point of view?

Job rating of employee—how is he getting along?

Wage rate of employee—any recent change?

What (if any) company policies are involved?

Personal data concerning the employee

(a) Age

(b) Marital status and home life

(c) Outside activities: hobbies, social life, etc.

Personality, temperament, attitude of employee

What persons other than employees are involved?

What intermediate action (if any) has been taken in the problem? (This does not refer to a final solution.)

If a member of a group says, "But suppose it had been this way"—remind them that we deal only with facts. The Trainer must be particularly careful not to say "Let's assume" or "Suppose it had been."

Then ask—Are we reasonably sure we have the whole story?

If any member of the group says that he does not think there are enough facts, it is appropriate to ask him what part of the card brings him to that conclusion. The trainer may summarize by saying, "Then, if you were in the supervisor's shoes, you would feel you did not have the whole story and you would not be ready to decide on your action until you had more facts." This applies whether the supervisor presenting the problem has taken action or not.

5. Say—Let's take a look at the second step, Weigh and Decide. Write on board —*WEIGH AND DECIDE.* Here is where we think about these facts.

Quote the card—

The card says fit the facts together.

In fitting the facts together, let us see first if there are any contradictions; second, if there are any gaps that call for additional facts. *Discuss* these points.

Consider their bearing on each other. Do not make this either a statement or a "yes" or "no" question. This is part of the method.

Do the facts indicate some possible actions?

After this, again quote the card—

What possible actions are there? Write on board, under *Weigh and Decide*—Possible actions.

Explain that you are asking the group to suggest "possible actions" in order to:

get practice in weighing and deciding

show that there usually are several "possible actions"

You are *not* trying to make the decision for the supervisor, or criticize what he has already done.

Select one member of the group and ask: What would *you* do if *you* had *this* problem?

Ask him what facts he used. Do not let them be referred to as the "first and third"—name them. These are the facts which bear on each other and which produced the "possible action."

Ask the supervisor whether the action is possible within his company's policies and practices. If he says yes, write the "possible action" on the board.

Repeat with two more supervisors in the group.

A supervisor who points out in the discussion of Step 1 that he believes all the facts have not been obtained should not be asked for a possible action.

If anyone gives as a possible action such suggestions as "get the facts" or "find out why" it is handled by saying, "You mean you would want to get more facts before you decided on what you would do to handle this problem. Any supervisor must feel personally sure that he has the facts before he considers action—that is the meat of this Job Relations program. But at this point we will let the supervisors who feel there *are* enough facts, suggest the actions *they* would consider." When such a possible action as "Talk with the worker" is suggested, clarify the meaning. If it is "to find out," then it is not a possible action. If it is "to persuade him," re-phrase it before writing on the board. Get agreement to write it as "reason," "convince," or "persuade" and ask how he would do it to make it specific.

If additional facts are brought out at any time, write them on the board. After there are three or four "possible actions" on the board, check the first one by:

Asking the group whether this will accomplish the objective of—

Asking the supervisor about the objective, briefly—yes or no

Asking the supervisor about the probable effect on:

the individual.

the group.

production.

Do not cross off possible actions even if the discussion proves them unwise. Crossing off may indicate to some the making of a decision by vote.

Remind the group that skill in weighing and deciding can be learned through practice. You become familiar with areas to explore, and what to be on the lookout for (but don't jump at conclusions).

If, in the discussion, there is some such statement made as "All these people coming from farms (or from stores, or all women, or any other generalization) are no good," or "All the fellows about to be called in the draft are hard to handle," the trainer must not let it stand. Point out that individuals are different, and that you can make a bad decision if you jump at conclusions about what they are like.

6. Have the supervisors state balance of his problem if action has been taken. Write it on the board. Make no comment on the action taken. Ask super-

visor what facts he used in selecting this action. If action has not been taken, proceed to Steps 3 and 4. Your lead-in can be, "When you take action on this problem, are you going to handle this yourself, etc.—."

7. Check sub-heads under Step 3 with supervisor. Ask—"Why" and "How" after sub-heads when pertinent. Get brief group discussion on timing—the interval between reaching a decision and taking action. Ask group in every problem—"Let us look at our cards."

New supervisors are often concerned about being "by-passed." Remind them that they are by-passed when they fail to size up situations effectively in order to take the right action—the action that solves a problem.

Some supervisors feel they have no responsibility in connection with people whose work they are supervising because a staff department like employment, medical, or safety performs certain services, or because a superior handles complaints, grievances, or transfers, etc. But in all problems, the man closest to the individual employee does have a relationship with that person—he must make it good in order to get the most out of production. It will strengthen his leadership when he does. With new supervisors, particularly, there will be many requests for help on "What do I do when he says he won't do what I ask him to, or else shows that he doesn't want to?" Handle this in terms of the particular person involved. There aren't any general rules, and the supervisor has to stop looking for them. This is a real situation, and the only help anyone else can give him is to tell him to look at the whole situation—the persons involved, including himself, the effect on other people—try it and see how it works.

If a supervisor asks: "What do you think of what I did?" it will be helpful to say, "Well, let's take a look at what you were trying to accomplish. What were the results?"

Do not lose any chances to emphasize to supervisors in your group that it is a definite part of the supervisor's job to realize just exactly how far his own responsibility and ability extend in the handling of job relations problems.

Remind supervisors to always ask themselves: "Is this something I should handle myself? Do I need help? Is this something I must pass on to my boss?"

Some cases will be brought in which involve people heading toward being fired. And sometimes that is the answer. Look at the effect on other people.

Is the effectiveness of the person more than the trouble he causes? In these days, we must keep everyone we can, if he is useful, but there are still some people who have to be fired.

8. Check sub-heads under Step 4 with supervisor. Use "when," "how often," and "what" after sub-heads when pertinent.

   Ask how the supervisor can check results, and what he will look for.

9. Have the supervisor check whether or not objectives were accomplished or whether they may be accomplished if problem has not reached final action. Let him tell "why."

10. Say—"Let's look at the other side of our card." (Make sure that they are looking at the cards.) Use the foundations in *preventive* sense. Ask supervisor—"Do any of our foundations for good relations apply in this problem?" "Could the use of any foundations have prevented this problem?" Consider: "People must be treated as individuals."

    If you are convinced that nothing on the foundation side applies, omit this step.

    Thank supervisor for contributing problem. (Do not comment or pass judgment on actions or results.)

Job Relations Reference 4

A WAY OF LOOKING AT THE SUPERVISORY JOB

"Getting out the work" seldom runs along smoothly without interruption. About the time a group is working together smoothly changes usually occur. Whether these changes are in the form of expanding schedules, improvements in methods, shifts in organization, or new employees, they always create problems. Supervisors need to know not only the operations and machines in their departments, but the people as well.

Expert knowledge of the job as an operator is not sufficient to make a good supervisor. In fact, such knowledge may make it difficult to notice the other supervisory problems. The supervisor needs to give attention to the particular characteristics of each individual for no two of them have exactly the same experience, abilities, and desires.

The supervisor will not always find it possible to apply these particular practices to his own situation, since they were used in different situations. But if he will look for the general ideas which the other fellows' practices illustrate, he will find that they can be applied to his problems too. These ideas have been derived from the experience of men in the shop.

It must be remembered that to the worker a job means more than just a pay check every week or doing mechanical operations over and over between in-and-out whistles. It means that he is part of an organization, wherein he has a particular place. It means that he is a human being who wonders what kind of people his fellow-workers are, what they are going to expect of him, how he should approach his supervisor, etc. Consequently, job training is more than just teaching a shop skill. It includes helping the worker to adjust himself to his surroundings, giving him an idea of the organization of which he is a part, and the particular place he is to fill in it.

This is the point of view from which we approach these five sessions.

The supervisor facing hour by hour the difficulties of getting out the product may easily overlook the difficulties of his workers. It is natural for him to think

most of results and to spend little time on people. Yet there are conditions in each department which hinder the employees from coming to full productiveness quickly and easily, and prevent the development of wholesome attitudes toward associates and the plant.

New supervisors can look back and remember a few things—what difficulties did you run into? Try to look at the department situation through the operator's eyes.

In getting out the product in the shop, the instructor or supervisor may fix his attention only upon materials. Look at the men—their minds, muscles, feelings, and attitudes. Observe them and talk with them. Notice what they do. Attempt to analyze their actions. Listen to their comments and encourage them to talk because the more clearly you know each operator as a person, the better you can supervise.

Hindrances to Understanding Men

Understanding people is not a simple process. The supervisor or instructor who says, "I can size up a man as soon as I put him to work," is usually fooling himself. It will be helpful to notice some of the habits which actually hinder us in understanding them.

The "Die-Casting" Habit—Too often, as we observe individuals, we try to sort them into types or, to put it another way, to force them into imaginary molds which we have set up in our minds, much as the die-caster squirts metal into different kinds of molds. They may be different shapes before they go in, but they're all alike when they come out!

We feel that we have completely cataloged Bill Jones when we say that he is a "good mixer," that we have defined Tom Smith when we put him down as a "tough customer." But we can't do that with people, if we really wish to understand them. We must study each one from all sides, not pour them into molds or cast them into types.

The "Just Like" Habit—"He reminds me for all the world of Bill Brown," we say, and thereafter we notice most easily the traits which are like Bill Brown and ignore those which are different. Once we have made up our minds he is "like Bill Brown," we close our minds to the possibility of his having other characteristics which we may need to know. We stop studying him, with the result that we never discover many of the interests and abilities which are part of him.

The "Go, No-Go" Habit—"I can tell whether a man will make a good operator in this job as soon as I see how he follows directions," said a supervisor. "If he listens carefully to my directions for doing the job and does it exactly as I tell him, he will make a good man. If he doesn't get the directions the first time, but tries to 'dope out' his own way of doing it, he seldom learns to do good work here." This supervisor, if he really does follow the way of thinking which he described, is classifying all employees into two classes: (1) Those who follow directions to the letter, and (2) those who try to figure out methods of their own. His gage of men is two-valued, "go" or "no-go." There are no "in-betweens." He is applying an inspection technique not an understanding one.

People are seldom "either-or." Studies of individuals show that approximately two-thirds of them have each of the commonly observed traits to a moderate degree, that is, they are close to the average in it, and that only a small percentage have markedly large or small degrees of any trait. Not "either—or" but "the degree to which" should be the guiding concept in studying people.

Similarly it is easy to fall into the habit of judging employees solely by how well they do that particular phase of the job in which the supervisor prides himself, overlooking their skill or lack of skill in other important parts of the work. For example, in one assembly and adjusting job the supervisor had worked out a better way of tensioning a small spring. He took pride in this. It was very easy for him to fall into the habit of judging operators almost entirely by the way they tensioned this spring and to pass over other parts of the operation. People's reactions cannot be measured fairly with any single gage. They are too complex.

The "Formula" Habit—Closely related to these "stereotype" ways of looking at people is the practice of dealing with each "type of person" in a certain set manner. It has been said that the way to "handle" the "oldtimer" is to "let him alone," that the best way to get along with the "chronic kicker" is to "lay down the law," that the way to teach the new worker is to "show him how" to do the job and "tell him what" the requirements are.

Of course, these methods work a good deal of the time with many of the people with whom supervisors and instructors have to deal. Otherwise they would not be so commonly accepted. But they become a hindrance when they are used as excuses for lumping people together in groups or types and avoiding the responsibility of trying to understand each person as an individual.

In short, people cannot be handled like piece parts or apparatus. Each is an individual, different from every other. "Stereotyping" them, classifying them,

standardizing them, or reducing them to formulas—habits of thinking that work well with inanimate things—often prove to be actual hindrances in handling people.

The "Standardization" Habit—Supervisors and instructors may become so accustomed to thinking in terms of standards that they look only for *common* responses of "the worker" and pay little attention to the *special* interests, abilities, and peculiarities of individual employees. Yet it is these special characteristics that yield fruitful contacts upon which to base effective supervision. It is the ways in which a person is different, and especially the ways in which he is superior to the "mine run" of people, which furnish the key to his special interests, for he tends to develop strong interests in the fields in which he possesses ability. The instructor has the problem of taking each of these unique and different personalities, finding out what he is like and to what he will respond, and fitting him into a job and into a working organization.

How to Understand the Individual Employee

How can the supervisor understand a person who comes into his organization well enough to fit him into the department? He can talk with him, question him, observe him, throw out conversational leads to draw him out, listen to him, and think and listen and think, seeking ever to look behind appearances and first impressions into the background of feelings, sentiments, and other reactions-to-experience which make up the man himself.

Keeping in mind that it is not a question of "either-or" but rather of "the degree to which," the supervisor can use the following questions in his study of each individual. In using each question, however, the supervisor must think constantly, "To what extent does he do this? In what degree is this true or not true of him? How far is this aspect important in this individual? Why does he react the way he does?" Here are the questions:

1. Is he "doing a good job?"
2. Does he fail to understand instructions?
3. Does his attention wander from the job?
4. Is he interested in his job?
5. How does he respond to recognition?
6. Does he stand on his own feet?

7. Does he seem ill-adapted to the job?

8. Does he get along well with the other people in the department?

Each of these questions may now be considered a little further.

1. *Is he doing a good job?*—Does he miss a part of the instructions when he is given a start on the new job? Most likely he does. Is he therefore stupid or careless? Not at all. He is merely human. The human mind has a perfect mechanism for avoiding overload. It simply ignores. If parts of the situation are wholly unrelated to the individual's past experience or to his present interest, he "pays no attention to them." If the total situation demanding his attention—for example, the new job—is complicated, his eyes and ears first grasp only those aspects which interest him most. If his experience with these is satisfying, he soon explores further and is ready for more instruction. The supervisor or instructor can help, first, by noticing the points of the job he seized upon at the beginning, as cues to his interests, and relating the rest of the instruction to these interests; and second, by noticing what points of the job the worker missed and bringing these to his attention as soon as he is ready for them. Are you sure that he knows just what you expect of him? Have you over-sold the job and is he let down?

2. *Does he fail to understand instructions?*—Does he misinterpret them? Does he fail to catch the point of the explanation? Does he seem "a bit thick?" The easy way out is to label such a person "dumb" and thus avoid all responsibility for making an efficient operator of him. This, however, neither saves the man nor gets the work done, and what is more it is usually unnecessary. Most workers who have passed the employment office are high enough in mental capacity to learn readily the jobs to which they have been assigned. When they fail to understand, it is not from "dumbness" but from *narrowness of experience.* They are like the city boy who, on his first visit to a farm, tried to get a pail of water by calmly holding up the pump handle, waiting for the water to come. Why shouldn't he? He had seen hydrants with pull-up handles but he had never seen a pump in a well.

The worker who learns slowly because of narrow experience can usually be trained by patient, well-planned instruction and often makes a superior operator. Cues to his background and his interests may be gained by encouraging him to talk about the job, listening to him without interruptions, and giving attention as much to what he takes for granted as to what he actually says. Gaps in his background can be filled by giving him actual experience in the shop.

The worker who misinterprets instructions and thus makes mistakes is a similar problem. On account of the narrowness of his experience he fails to understand. Where others might have got meaning he draws a blank because he doesn't know the "code." Yet he fears to reveal his ignorance. What does he do? He bridges the gap by using his imagination and, whenever he guesses wrong, he makes mistakes. The remedy is to make connection with his meager experience by finding out as much about it as possible and to win his confidence to the point where he is willing to ask questions. It often helps to have him repeat instructions in his own words: "Now just to be sure I've made it clear, tell me what it is you're going to do."

Care in explaining shop terms will help greatly. One worker tells of his first day in the shop thus: "The boss gave me a big pan of little gadgets and said, 'Take these piece parts over to that bench and "mike" 'em. The "max." and "min." are six and ten.' Then off he went and I spent the next 3 hours trying to figure out what mike, min., and max. had to do with the job, and what I was supposed to do with the pan of gadgets."

Ignorance of shop terms and shop customs is by no means confined to "new" employees fresh from the employment office. Picture an experienced employee newly transferred from a distant department, trying to adjust himself to a new location and learn a wholly new kind of job. During his years on the old job he has gone along paying little attention to other organizations, yet now on the new job he is ashamed to reveal his ignorance. He is grateful to the instructor who will take the trouble to discover the limits of his experience and give him the help he needs.

3. *Does his attention wander from the job?*—Does he seem to be oversensitive to noises, changes in light and ventilation, presence of other workers or passers-by? If so, he is merely responding naturally—acting "like a human being." Most individuals find it hard *not* to pay attention to all that is going on around them, especially to noises and people.

The new worker, in addition to mastering his skill, has to become accustomed to a "total situation" which is strange and fascinating. In fact, a part of any skill is an ability to ignore everything except the activity itself—to concentrate one's attention on it. Witness the ability of the champion athlete to forget his gallery and lose himself in the game.

Complete absorption in a task and disregard of surroundings amid the distracting noise and activity of a manufacturing plant is not a natural act. It is an

achievement—that is, it can be learned. Fortunately, most workers are able to learn it for themselves in a relatively short time. Sometimes it is possible to help the worker who is unusually sensitive to distraction by placing him in a less exposed location where noises are more uniform or monotonous or by transferring him to work which requires a broader spread of attention or which includes dealing with a large number of people.

4. *Is he interested in his job?*—Does he fail to put forth the effort necessary to learn to do the job well? A boy will have an interest in a job if he feels that it is in harmony with his own purposes, that it is "getting him somewhere." If he can identify the job with himself, see its connection with his own life, with his cherished ambition, then he is "interested in the job" in the same sense that a man who buys an interest in a business is "interested in" that business. When this happens there is no trouble about effort.

But often the new worker cannot see any relation between his own plan for the future and the job to which he is assigned. The instructor can explain to the worker how upgrading takes place and what avenues of advancement are open to him if he is efficient in each job along the line. Some young workers are victims of the "white-collar" craze; their only idea of advancement is to get out of the shop and into the office, without any clear understanding of the possibilities of either. A supervisor or instructor can often render a real service to such young people by giving them facts regarding the values of shop experience, no matter where later promotions or transfers may lead, and helping them to think over their plans and ambitions in the light of these facts rather than on the basis of family or personal prejudice regarding "overalls" or the "white collar."

Occasionally the supervisor or instructor finds an individual who has "hitched his wagon to a star" far beyond the limits of his capacity, background, and education. He may have to help such a person to get his feet on the ground. On the other hand, some learners in the shop seem to have no definite ambition or plan of action for their lives at all. By talking with them and becoming better acquainted the instructor may be able to discover such an ambition and help the worker to connect his job with it.

Under war conditions it is a powerful stimulus to show each man what he and the department do for the war effort.

One instructor, in training a man to turn out a bushing on a turret lathe, said, "This part will be hardened and ground and put into a molding machine to guide the mold down into place accurately each time it is closed to mold a casting."

Many instructors make it a point to tell the operator how his product will be used: "This goes into an airplane to show the pilot so and so—." "This goes into an instrument panel to show so and so—."

In a highly specialized factory it is difficult to provide the interest which the old craftsman felt in the product of his hands because it was all his own, from raw material to finished master piece. The modern shop, where the worker can see the whole product fabricated before his eyes, provides an opportunity to revive this kind of interest. For the same reason, moving workers about from job to job until they have become familiar with all the operations on a particular product adds to their interest. Each job takes on meaning and significance as its relation to other operations and to the whole product is seen. The worker can "see what he is doing" and see that it is worthwhile.

Likewise a worker has more interest in his machine if he understands how it works, the principles of its operation, what it can do, and just as important, what it cannot do; i.e., the limits of its operation. When the worker knows these things, instead of blindly following the directions of the machine setter or the equipment man, he takes an interest in the machine. Because he feels that he understands it, he comes to identify it with himself, just as he does the job in which he "has an interest." It becomes his machine, and thus a new interest in the job is born.

A more simple key to the worker's interest is some activity which he enjoys doing for its own sake. One supervisor makes a practice of talking with the new worker about his hobbies. He discovers what the worker likes to do and often is able to relate the job to these interests, or to help him transfer to a job he enjoys.

Knowledge of his own progress stimulates the learner's interest. Supervisors long ago discovered the value of operators' performance records as an incentive, especially when presented in graphic form. We like to beat our own record, to see ourselves grow in skill, and most of us like to engage in rivalry with others. Rivalry in output, however, is a form of stimulation which has to be handled wisely, especially during the training period. Progress in learning does not always register in daily output. While learning correctness of "form" and developing the ability to reach quality standards, output may not show a daily increase and the worker should not judge his progress by it. The instructor can prevent discouragement and loss of interest by directing his attention to this fact.

Then there is the matter of social approval. Any experienced supervisor knows the value of recognition as a stimulation of interest in the job. Praise is discussed further in a different connection below.

The effectiveness of all these ways of reaching the worker's interests and relating them to the job lies in the fact that a man reacts as a whole. We sometimes talk of training his muscles or his brain or his hands. We can't. His whole self is being trained by every experience he has. We teach the man, not his hand. When he has mastered a skill, the whole man has it, uses it, and is proud of it. The man himself has ambitions to which the job may or may not be related. The man himself enjoys doing it, or is indifferent to it. The man himself basks in the appreciation of his fellows when they recognize that he has done the job well. Anything which connects with his interests affects all parts of him. His eye brightens, his mind becomes more alert, his hand more sure. Recognition of success in one part of the job reacts to heighten his interest in the job as a whole, and he does the whole job better. Conversely, failure in any part of the job depresses the whole man, his work and his attitude toward the job—unless he and his supervisor regard the failure as a challenge, analyze it, and learn how to overcome it.

The largest factor with which a supervisor or instructor has to deal is his worker's "interests." This emphasizes again the need for the supervisor to become well acquainted with his workers as persons, to understand their backgrounds of experience, their hopes and purposes for the future, their bents and special abilities, all in order that he may help them to discover real and lasting connections between themselves and their jobs.

5. *How does he respond to recognition?*—Does praise stimulate him? How does he take criticism?

Experienced supervisors know that a little recognition adds zest to the job and stimulates a man's efforts. This is especially true of the learner, because he feels insecure and uncertain about himself anyhow. Building his confidence is part of the job.

Recognition of good work can be given in many ways. Posting records of progress has been discussed above. Advancement to a harder or more important job stimulates a learner just as it does an experienced worker. Whenever he is ready for a more difficult step in the learning of the job, the instructor can use this for stimulation by saying, "You've done well with that. You're ready for this harder job now."

The most tangible form of recognition is of course the weekly pay envelope. An increase in his rate is a visible goal. But so many factors over which the supervisor has no control enter into determination of wages that he finds other forms of recognition also necessary as instruction incentives. Using an advanced learner

occasionally as an instructor is a form of recognition. It adds prestige and gives a bit of recognition to those who are competent.

Praise in the presence of the group is an effective form of recognition, so long as it is fair. It is usually stronger than praise in private but more difficult to give because the members of the group are always making comparisons. Both approval and correction are necessary, but criticism given before the group usually results in confusion or resentment.

The new worker learns more from praise than from censure. The reason is simple. He is blundering about, seeking the right way to do each part of the job. When he happens upon a right way, and the instructor approves it, he *knows* he has got that part of the job, and seeks to repeat it. At the same time he experiences a glow of satisfaction which spurs him on to master other parts of the job. But suppose he tries a wrong way and is "bawled out?" What has he learned? Simply that that one way is wrong. He still does not know a right way and may try many other wrong ones before he finds a right one. Meanwhile he feels discouraged because of the disapproval. The alert supervisor will of course seize such a moment to demonstrate again the "right way" to do the operation, though that is beside the point here. It is often necessary to point out mistakes but, even at its best, censure or adverse criticism helps the learner too slowly on his way to skill. Instead it is better to catch him as often as possible doing the right thing, even by chance, and speed him on his way with a word of appreciation.

6. *Does he stand on his own feet?*—Does he lean on the supervisor too much, or go to the opposite extreme and act as if he knows it all?

Most new workers are a bit fearful and lacking in confidence, some more and some less. They show it in curious and contradictory ways, as the above questions suggest. A little fear when facing a new situation serves to awaken most persons to greater alertness and effort. They are able to rise to the occasion and soon overcome their fears. They "take things in their stride." Yet there are many individuals who lack emotional balance, who have not learned to take life as it comes, to face reality as adults. It is important, however to remember the caution about "die-casting" people into molds, to notice "the degree to which" the individual lacks emotional balance. Differences in individuals range all the way from the person who adjusts himself to the job situation promptly, stands on his own feet and quietly tackles everything in a matter-of-fact way, to the person who leans on others and expects favors, who covers his fears with overboldness, or who seeks to "make a good impression" instead of concentrating his attention on learning the job.

While the supervisor or instructor cannot go along indefinitely trying to help a maladjusted person "grow up," he can often add to the timid man's confidence by pointing out his successes and, on the other hand, bring a bluffer back to reality by facing him with the demands of the job. He is interested at all times in each operator's reactions to the job and to his fellow-workers, because they are facts which affect his doing the job, his attitude toward it, and toward the whole organization.

7. *Does he seem ill-adapted to the job?*—In spite of the best efforts of line supervisors and personnel organization, employees are sometimes placed on jobs they cannot do satisfactorily. Two cautions are in order here, however.

First: Do not assume that an employee is a misfit in a job until he has been fully and correctly instructed on that job and has shown that he cannot do it successfully. Many men have been called misfits on jobs they never had a fair chance to learn. Often a slow learner makes an excellent operator. It is a misfortune for him if he has to begin the job under a supervisor or instructor without patience and willingness to instruct.

Second: Do not assume that when a worker is a misfit in one job he is useless. Any supervisor of long experience could tell stories of "misfits" who found other places where they made good. Few misfits are totally unfit.

Get acquainted with the employee, win his confidence, discover what he can do and likes to do, find out his difficulties on the job, and see that he either learns it or gets a fair trial at other jobs for which he is better adapted.

8. *Does he get along well with other people in the department?*—Sometimes men know how to do their jobs well, and yet they are not effective because they do not get along well with the people with whom they work.

Consider whether any differences in your relationships with the various people are part of the situation.

You may need to re-align the team in order to get a group to work together.

SUMMARY

Good supervision is not a skill which can be mastered over night—human beings are complex. But it is a skill in which you improve on the job, and one which gives returns to you, your department, your plant and the war effort.

NOTES

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V—Union Job Relations

The Union Job Relations program is a special adaptation of the Job Relations program which was prepared in order to give union stewards basic instruction in the skill of leadership.

UNION JOB RELATIONS

10-HOUR SESSIONS OUTLINE

AND

REFERENCE MATERIAL

WAR MANPOWER COMMISSION
BUREAU OF TRAINING
TRAINING WITHIN INDUSTRY SERVICE
WASHINGTON, D.C.
AUGUST 1945

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WAR MANPOWER COMMISSION

Washington 25, D. C.

August 1, 1945

To the War Production Trainer:

Your Union Job Relations sessions can have for your union and for the war production effort a constructive influence, perhaps never before experienced. You have an unusual opportunity of influencing stewards to improve their everyday relationships on the job.

Representing workers' alone is not enough. Stewards must give every man and woman they represent the leadership that enlists cooperation and teamwork. You can help stewards to get this skill of working with people - it is your obligation to stress its importance to them.

You should strive with all the energy and diligence you possess to lead each Union Job Relations group in the very best way possible - and to do a better job with each succeeding group.

To assure a uniformly high standard, work from this outline always. Do not deviate from it. Do not trust to your memory, regardless of the number of sessions you put on.

Once again, leadership in Union Job Relations presents an opportunity and an obligation.

Sincerely,

C. R. Dooley, Director
Training Within Industry Service

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SUMMARY OF PURPOSE AND EMPHASIS OF UNION JOB RELATIONS SESSIONS

I To establish the fact that everyday job relationships are one of the most important parts of the war production steward's job. To present the foundations for good relations. To establish a 4-step method for meeting union job relations situations.	A steward gets results through people. People must be treated as individuals. Good stewardship prevents many problems, but the steward must know how to handle those that do arise.
II To develop skill in Step 1, "Get the Facts." To give the group practice on Step 1 through emphasis on this step in a problem presented by the Trainer, and to give members of the group practice in looking at the 4-step method in two problems brought in by stewards.	Complete facts must be known or obtained. Opinions and feelings must be found out and considered along with facts. It is necessary to look at an individual because people are not alike.
III To develop skill in Step 2, "Weigh and Decide" To give the group practice on Step 2 through emphasis on this step in a problem presented by the Trainer and to give members of the group practice in three problems brought in by stewards.	Decisions are made on the basis of facts properly evaluated and related.
IV To establish the importance of Steps 3 and 4, "Take action" and "Check Results." To give the group practice in Steps 3 and 4 through emphasis on these steps in a problem presented by the Trainer and to give members of the group practice in looking at the 4-step method in three problems brought in by stewards.	The steward must know his responsibility. He must watch the timing of his action and follow-up, and watch for effect on the objective, on the individual, on the group, on production, and on union standing.
V To give members of the group practice in looking at the 4-step method in two problems brought in by stewards. To review and summarize foundations, 4-step method, and tips for getting opinions and feelings. To consider the other working relationships of the steward to other union officials and to plant supervisors.	Further develop the habit of using the complete method. Point out application of the method to steward's other relationships. A steward gets results through people.

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STRATEGY FOR UNION JOB RELATIONS

Training Within Industry looks at the training of stewards as a five-part job. That is, the steward has five needs.

1. Knowledge of the work
2. Knowledge of responsibilities
3. Skill in instructing
4. Skill of improving methods
5. Skill in leading

Union Job Relations is a streamlined intensive program designed to give union stewards practice in developing skill in leading. It is not intended to provide any training in the "knowledge of responsibilities" area - the job of training stewards in the policies, agreements, and regulations of a particular union must be done by the union.

Union Job Relations aims to develop a skill - not to give stock answers on grievances, or to provide industrial relations background on such subjects as rates of pay, safety, working conditions.

Since Union Job Relations is focused on working with people, descriptions of what happens to people are the materials for this program. In the standard sessions outlines there are four of these problems, each of which is used at the specific point for a particular reason. The time of the members of the group is spent mostly on the handling of their own problems which they bring in for group discussion.

Union Job Relations is limited to groups of ten stewards. Experience has shown that this number is desirable. A smaller group does not provide enough variety of problems and a larger group provides too much material for inclusion within the ten hours.

In some instances observers have been admitted to the sessions with the purpose of giving them familiarity with the contents of the program as it normally operates. These observers are requested to stay in character as observers and are not permitted to join in the discussion. When there are observers present it should be made clear to them in advance that they are not being asked to attend in order to assist in lining up how the program should operate - this is a standardized program and no deviations or changes are to be made.

Training Within Industry urges the use of this program for all of the union's stewards and grievance committee members. Those who are new on the

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job of representing other people need help and training more than those who have had experience on the job.

However, if the union says that all its officers would benefit by this way of looking at union relationships or that the pressure of present production conditions has brought about an increase in the problems which a steward must handle, the same training program will apply to persons who have been on higher level jobs for some time. The nature of the problems brought in and the discussion may be quite different from those in a group of new shop stewards.

If in such a group their problems tend to be unanimously well handled, the Trainer should make a specific appeal for the bringing in of situations which have had poor results and also for the kind which may be sized up in advance to get good results through preventive action.

Out of the experience of preparing this program good reasons have developed for doing what is done, in the way it is done, and at a particular time.

SESSION I -- PRESENTATION OF FOUNDATIONS FOR GOOD RELATIONS AND THE 4-STEP METHOD

Getting Acquainted

Ask each man in the group about his own background and present union responsibilities. This brings quick and easy participation from every member of the group. The members are being asked to tell something about which they and only they have the story. Also, the Trainer gains valuable information about the people with whom he will be working for the next ten hours.

The Steward's Five Needs

The five needs are discussed to emphasize to stewards that, regardless of their industry or department, they must be well versed in two knowledges and three skills in order to be effective stewards. The skill of leading is covered in these sessions.

Chart on Steward's Responsibility

The development of the chart with "people" in the center and the arrow linking the steward to the people is a quick means of focusing attention on the subject-matter of Union Job Relations. There also is real group participation in the development of this chart as members point out their responsibilities.

Foundations for Good Relations

There are certain basic points which are followed by effective stewards. While Union Job Relations does not give a great deal of time in the ten hours to these foundations as such, nevertheless it is necessary to recognize their importance and to put them across in a way which will gain acceptance. They form the underlying spirit of good relationships and promote good stewardship.

Chart on the Individual

The pulling out of one person from the group of people through whom the steward gets results is done because of the need of pointing out that people must be treated as individuals since they are different in background, interests, and tastes.

The Mike Problem

This problem is told by the Trainer. It is short and the telling gives it much more reality than reading. Also, the members of the group will be telling their problems later, and the Trainer should set the pattern he wishes used.

This situation was handled in a way that got poor results. Such a problem was chosen for several reasons. First, it will often be necessary for the group to be critical about the results which a steward gets when he does not use the complete 4-step method. It is easier to start this pattern by presenting a problem which does not personally concern any member of the group.

Second, the problem is a very simple one from which it is easy to pull out the positive points which need to be made. Asking where the steward skidded almost invariably sets up the main points of Job Relations' 4-step method.

The telling of the problem is broken into two parts in order to get emphasis for the importance of starting the 4-step pattern at the beginning - getting facts before attempting to make a decision and take action. The discussion begins in the pattern which will be followed throughout. That is, it is necessary to first pull out just what the steward is trying to accomplish. This pattern of discussion enables the leader to keep away from criticism of decisions by focusing on the use of the method. The four main steps on the card are pulled out from the Mike problem. Experience has shown that the discussion is belabored if the attempt is made to also develop the sub-points.

How Problems Arise

This material is presented in order to show stewards that they often can get in on situations early, that an advance size-up may prevent problems.

This also will suggest to members of the group other problems which they might bring into the discussion.

Problem Sheets

The problem sheets are used to get conviction from the group that the Union Job Relations program is aimed at the kinds of problems that stewards encounter every day. It also gives hints on the type of problems which the members of the group will bring in for discussion.

Requests for Problems

Members of the group prefer to talk about their own problems rather than those brought in by the Trainer. The four standard problems are used because it is necessary to insure that certain points of the method are put across. But once these points are worked in, the rest of the time is given to the problems which the men themselves are living with every day. The problems are restricted to those which are within the steward's own job to handle, something he can and must do something about.

SESSION II -- IMPORTANCE OF GETTING THE FACTS

The Tom Problem

This problem is chosen to show the necessity of getting the facts and the importance of remembering that opinions and feelings must be considered the same as facts. The problem also gives some hints as to the way in which you get personal facts.

This problem is read, as exact words are important. Since it must be well read, which involves previous practice, it is specified that the Trainer read both parts of the dialogue.

This particular problem points to the difference between facts about the man and facts about the machine - both are necessary in order to have the whole story. The members of the group are also given a hint that it is sometimes necessary to probe a bit for the meaning behind words.

This problem points out the special importance of handling confidential material properly.

At a number of places the Trainer stops reading in order that the group may discuss specific points. It is possible in this way to get recognition of a few of the tips for getting personal opinions and feelings which will later be developed and summarized.

Problems Brought in by Stewards

In the first steward's problem, and all succeeding ones, the man who is to present a problem should come to the head of the table with the Trainer. It has been found that shifting of position in the room is welcome and there appears to be a certain advantage in focusing on the man in this particular way. In the handling of the steward's problem the objective is pulled out to open the discussion. The Trainer must at all times be careful to key the comments, to "Did he follow the four steps" - not to "Did he make a good decision?" The discussion must be handled so that the steward who presents the problem gets practice in using the four steps (see Standard Procedure, Reference Section).

Request to Consider Several Problems

Since occasionally a group member who is new or reluctant to talk does not wish to bring a problem for discussion, and also because some problems are so simple that any lengthy discussion would be belabored, it is sometimes necessary to have more than one problem from some members.

If a man says that he does not have any problems, review the problem sheet again and ask such questions as "Does anyone ever think he's not getting a square deal?" "Did anyone ever complain about not getting a raise?" "Are any changes coming?" Personal coaching may help a man who is reluctant to present a problem. If the man is obviously unwilling to present a problem after spending some time on reconsidering kinds of problems, do not press him too far. This would be poor Job Relations. (He cannot, however, be certified if he does not present a problem.)

Request for Problems with Poor Results

If all problems are well handled, discussion is not as interesting as if a diagnostic technique can be used to show where the steward skidded.

SESSION III -- BASIS FOR DECISIONS

The session is opened by showing that a doctor in getting the symptoms of a patient goes through a process quite like the JR 4-step method. Comparison with the doctor is used to show that the 4-step method has universal application, that it is specifically followed in a prominent profession, and perhaps most important of all to show that the doctor needs and gets much confidential information which he must handle well or it will not again be available to him.

The Old Hand Problem

This situation which ended in poor results is used to stress Step 2, "Weigh and Decide." It brings out the necessity of using all the facts and

This also will suggest to members of the group other problems which they might bring into the discussion.

Problem Sheets

The problem sheets are used to get conviction from the group that the Union Job Relations program is aimed at the kinds of problems that stewards encounter every day. It also gives hints on the type of problems which the members of the group will bring in for discussion.

Requests for Problems

Members of the group prefer to talk about their own problems rather than those brought in by the Trainer. The four standard problems are used because it is necessary to insure that certain points of the method are put across. But once these points are worked in, the rest of the time is given to the problems which the men themselves are living with every day. The problems are restricted to those which are within the steward's own job to handle, something he can and must do something about.

SESSION II -- IMPORTANCE OF GETTING THE FACTS

The Tom Problem

This problem is chosen to show the necessity of getting the facts and the importance of remembering that opinions and feelings must be considered the same as facts. The problem also gives some hints as to the way in which you get personal facts.

This problem is read, as exact words are important. Since it must be well read, which involves previous practice, it is specified that the Trainer read both parts of the dialogue.

This particular problem points to the difference between facts about the man and facts about the machine - both are necessary in order to have the whole story. The members of the group are also given a hint that it is sometimes necessary to probe a bit for the meaning behind words.

This problem points out the special importance of handling confidential material properly.

At a number of places the Trainer stops reading in order that the group may discuss specific points. It is possible in this way to get recognition of a few of the tips for getting personal opinions and feelings which will later be developed and summarized.

Problems Brought in by Stewards

In the first steward's problem, and all succeeding ones, the man who is to present a problem should come to the head of the table with the Trainer. It has been found that shifting of position in the room is welcome and there appears to be a certain advantage in focusing on the man in this particular way. In the handling of the steward's problem the objective is pulled out to open the discussion. The Trainer must at all times be careful to key the comments, to "Did he follow the four steps" - not to "Did he make a good decision?" The discussion must be handled so that the steward who presents the problem gets practice in using the four steps (see Standard Procedure, Reference Section).

Request to Consider Several Problems

Since occasionally a group member who is new or reluctant to talk does not wish to bring a problem for discussion, and also because some problems are so simple that any lengthy discussion would be belabored, it is sometimes necessary to have more than one problem from some members.

If a man says that he does not have any problems, review the problem sheet again and ask such questions as "Does anyone ever think he's not getting a square deal?" "Did anyone ever complain about not getting a raise?" "Are any changes coming?" Personal coaching may help a man who is reluctant to present a problem. If the man is obviously unwilling to present a problem after spending some time on reconsidering kinds of problems, do not press him too far. This would be poor Job Relations. (He cannot, however, be certified if he does not present a problem.)

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The Old Hand Problem

This situation which ended in poor results is used to stress Step 2, "Weigh and Decide." It brings out the necessity of using all the facts and

weighing them before making a final decision. The poor decision was reached because the steward first did not properly evaluate the facts which he had, and second, because he did not have the whole story.

SESSION IV -- CHECKING RESULTS OF PREVENTIVE ACTION

The problem of the first woman supervisor is used as an example of good results of preventive action. The problem involves a number of people, and the subject is one which is current in many war production plants. The members of the group are also given a tip to work through those people who are recognized as natural, but informal, leaders.

Effect of Change

This subject is brought up to show that the problem of the first woman supervisor is not a "woman" problem, but one typifying "change." Change is usually resented, and stewards need to take preventive action.

SESSION V -- A STEWARD'S OTHER WORK RELATIONSHIPS

Request for Statement on Use of Job Relations

By getting the members themselves to pull out the advantages to them personally of following a method which will improve the quality of decisions and actions and which also shows the importance of checking results, the selling of Job Relations is completed.

Chart

The steward's responsibility chart as used in Session I is now amplified in order to point out to the steward the important position in which he is and to give recognition to it. This chart also offers the opportunity of again stressing "Get the Facts." The Trainer develops the idea that getting the facts will be useful in any relationship that the steward has, and that in a number of cases he will be responsible for giving the facts.

Closing Statement

The members of the group must leave with the feeling that what they do does matter, that it is very important. When the Trainer has made this point the session should be ended no matter what time it is. After a high point has once been reached, the whole effect can be ruined by keeping the members straining at a discussion in order to fill the hours.

INTRODUCTION OF UNION JOB RELATIONS TRAINER BY UNION REPRESENTATIVE

Trainer to provide union representative with copy of this page

---

Union Job Relations is:

streamlined program for war industry from Training Within Industry

developed by TWI and union leaders from industrial experience

parallel to a supervisory Job Relations program

The union officers:

have approved this program

want it for this union

expect you to attend each session, and be here on time.

This is your meeting -

no reports are going to be made to the union, except on attendance

There will be:

5 two-hour meetings

held at_____in_____room, on_____

This program is important:

the union expects you to do a good job - includes good relations with the people you represent

the union knows you are going to get some real help

this method will show you how to be a more effective steward

This is Mr._____

UNION JOB RELATIONS TRAINER'S INTRODUCTION WHEN NO UNION REPRESENTATIVE ATTENDS

I am _____

Union Officers:

have approved the Job Relations Program

want it for this union

Job Relations is:

streamlined program for war industry from Training Within Industry

developed by TWI and union leaders from industrial experience

parallel to a supervisory Job Relations program

This is our meeting -

no reports will be made to the union, except on attendance

There will be:

5 two-hour meetings

held at _____ in _____ room, on _____

C O D E

CAPITALS . . . . . Section Heads

Horizontal line across page . . Encloses section for timing

Plain type . . . . . Trainer says in own words

* Star in front of line . . . . . Trainer says verbatim

Material between lines . . . . . Board work

[Bracket] . . . . . Instructions to trainer

7-666g P12 bu

Union Job Relations--Session I

PRESENTATION OF FOUNDATIONS FOR GOOD RELATIONS AND 4-STEP METHOD

Allow 5 min.

INTRODUCTION BY UNION OFFICER (recommended procedure)

Give union officer copy of outline (page 10). Best results are obtained when a union officer opens the session.

5 min. to here

Introduction by trainer (emergency only). Use outline (page 11) when impossible to get union officer to open the session.

Allow 10 min.

GETTING ACQUAINTED

1. Tell something about your own background of union experience. This is important even if you know all members of the group.

2. Have stewards introduce themselves.

   Use name cards.

   Ask each man to tell you:

   work - department - number under jurisdiction - union experience.

7-6668 P13 bu

3. If there are observers, explain:

   They wish to know more about the program.

   They do not enter the discussion, ask questions, or make remarks.

4. Stress - our meeting - problems discussed here are confidential - no names - give reasons - get agreement.

15 min. to here

5. Those who attend all five sessions and present a problem will receive certificates.

Allow 10 min.

DISCUSS THE STEWARD'S FIVE NEEDS.

In these meetings we are going to use the term "steward" a great deal.

* For the purpose of our discussions, when we refer to the
* steward, we mean any member of the union elected or
* appointed to represent other members.

* You are all stewards.

Good stewards realize that they have five needs.

Let's take a look at these needs: They are:

* 1. knowledge of the work
* 2. knowledge of responsibilities
* 3. skill in instructing
* 4. skill of improving methods
* 5. skill in leading

1. Knowledge of the work refers to the information which makes your job different from all other jobs.

   A steward, to properly represent his constituents, should have a knowledge of their work in order to represent them in matters concerning production, safety, rates, and job classification. He needs to know:

   Materials
   Machines
   Tools
   Processes
   Operations

2. Knowledge of responsibilities refers to the particular union and company situations regarding:

   Contract between union and management
   Workmen's compensation
   Unemployment insurance
   Policies and practices of the local union
   Relationships between departments and plants
   National Labor Relations Act
   Union constitution and bylaws
   Policies of the War Labor Board
   Plant policies and practices
   Safety rules
   Schedules

   These are different in every union and in every company. Hence this knowledge of responsibilities must be supplied locally.

   Every steward, to do his job, must have a clear understanding of his authority and responsibilities as a part of his local union. He must also know the company's own rules and policies.

   These local responsibilities are the "ground rules" under which every steward has to work.

3. Skill in instructing is needed so that the steward can instruct other union members in the ways of doing union work. It is important for every union to give its stewards help in this field.

4. Skill of improving methods helps the steward to make specific and workable suggestions for new production techniques which will make the job easier and safer for his people. This skill is also needed in order to improve methods of doing union work.

5. Skill in leading helps the steward to improve his ability in working with his people.

There are basic principles that, when applied day in and day out, will tend to keep relations smooth and prevent problems from arising.

By pointing out the ways that problems do arise one can readily see that preventive action can be taken.

This applies particularly in anticipating changes that may not be readily accepted and in sensing changes in output, attitudes, and relationships.

However, when problems do arise, there is an organized procedure to handle such problems that helps get better results from the action we take.

[STRESS THE FACT THAT SKILLS ARE ACQUIRED BY PRACTICE.]

25 min. to here

The steward is not born with this skill. He must acquire it by actual practice. Just as soon as this skill is acquired by a steward he becomes more effective in the doing of his job. In these five 2-hour sessions, we will discuss this skill in leading which we shall call Union Job Relations.

Allow 20 min. DESCRIBE STEWARD'S PROBLEMS AS REGARDS JOB RELATIONS.

1. Too few people realize that the steward's job is complex and difficult.

Unions want better relations among their own members and with management. The union wants better handling of complaints and better handling of real grievances.

This always requires the loyalty and cooperation of the members of the union.

Can we do something which will improve loyalty and cooperation? That is the purpose of these meetings.

When a machine is installed in a department, a handbook comes with it - or there may be a mechanic specially qualified in how that particular piece of machinery works, and directions on how to keep it in good operating condition, or what to do when it breaks down.

Stewards get new people all the time, but handbooks don't come with them.

How are you going to make those new members good union men? What will you do if they fail?

A union member tends to judge the whole union in terms of the treatment he receives from his own steward.

Remember when you joined the union - the first contact you had with your steward? I still remember. (Illustrate)

There are thousands of people on union committee jobs today who were only members a short time ago.

As time goes on thousands more men and women will have to become stewards or assume committee jobs.

Some of these people - some men, some women, have long backgrounds as members, some do not.

These new stewards and committeemen must quickly learn to work through people.

They must recognize that they can get their jobs done only through the cooperation of the members whom they represent.

Stewards, new and old alike, are confronted with the problem of obtaining the cooperation of:

people who have never worked before.

people who have had steady work but of a different nature.

people who have never been members of a union.

people who present complaints and grievances which can't be processed.

Newly elected stewards also may have the problem of obtaining the cooperation of people who:

know more about the union than they do.

have many more years of service within the union than they have.

have served as stewards or lost in an election for stewards.

[Try to get agreement.]

All stewards have to understand the attitudes of higher union stewards and secure their cooperation.

To meet such problems some kind of training in the special skill of leading is necessary.

This skill of working with people has long been recognized as a mark of good stewardship.

2. What do we mean by "good stewardship"?

* Good stewardship is looking after the interests of
* the people you represent.

3.* Now, in these sessions I'm not going to tell you how
* to run your job.

But experienced stewards have developed a skill in working with people.

This skill can be learned.

It saves stewards a lot of headaches.

Good stewards need and develop skill in working with people.

35 min. to here

Let's see what we can find out about this skill.

Allow 10 min.

SHOW THAT A STEWARD MEETS HIS RESPONSIBILITIES THROUGH RELATIONSHIPS WITH PEOPLE.

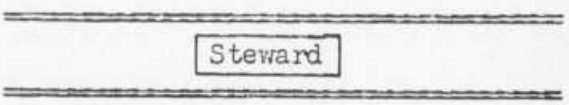
1.* What are the common titles for different levels of
* union officers?

These may be suggested:

district committeeman	international representative
steward	president of the local
chief steward	member of executive board

* For the purpose of our discussion, when we refer to a
* "steward" we mean ANYBODY WHO REPRESENTS PEOPLE OR WHO
* IS ELECTED OR APPOINTED TO A SPECIFIC UNION JOB.

Write "Steward" and enclose in a box near top of left third of board.



* This steward not only represents people, he gets
* results through people. The steward gets his work
* done, not through authority, but through leadership.

Someone asked what a leader was. He got this answer. A leader is someone who has followers. Some men have to get behind people and drive them. The leader sets a course and people follow him.

A steward not only represents people - he gets results through people

Write above Steward:

A steward gets results through people

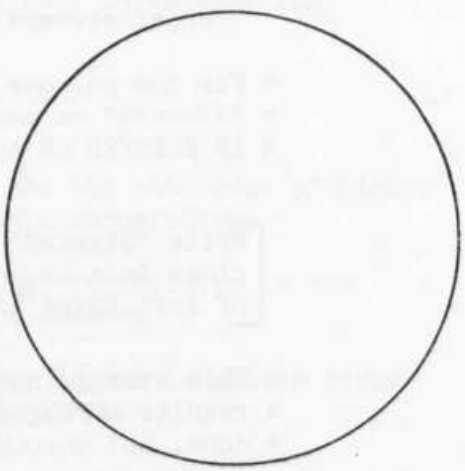
Let's look at what you do as a steward.

We will let this circle represent the steward's job.

A steward gets results through people

Draw circle under Steward:

Steward



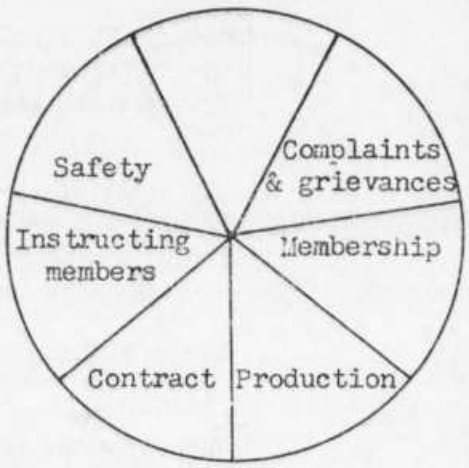
2. Let's look at the things for which your union holds you responsible.

A steward gets results through people

Steward

* Of course, our union
* holds us responsible for
* handling complaints and
* grievances.

Write complaints and grievances in one segment.



* Besides complaints and
* grievances, for what
* else does your union
* hold you responsible?

As members suggest kinds of union responsibilities, write the name and outline the segment. Write down whatever is mentioned, but try to include those on the chart at right.

Any of the following suggestions may be offered:

morale	working schedules
public relations	union welfare

Leave top section of the circle unlabeled.

* We will let this section represent all other respon-
* sibilities of the steward.

3.* We won't try to define the whole job of the steward -
* instead let's see if there is anything in common about
* these responsibilities.

Whose grievance is the steward handling?

[Do not spend too much time getting the answer, which is "People." Give it yourself if someone does not give this answer.]

[Put small circles in the "Complaints and Grievances" segment.]

A steward gets results through people

[Steward]

* These represent people.

Who are these members?

[When someone says "People," put in other circles in segment marked "Membership."]

[Continue until there are small circles in every segment including the blank one. You can say:]



Who have to be instructed? _____

[Use "who" questions.]

* Is there any part of the steward's job which does not
* involve people?

No.

[Place circles in blank segment.]

A steward gets results through people

[Steward]

When we look at any part of the steward's job, we find people in the situation.

[Enclose small circles in a hub.]



[Erase most of the small circles and write PEOPLE inside the hub.]

The steward gets results through people.

[Point to heading.]

* In order to meet these
* responsibilities there
* must be some relation-
* ship between the steward
* and each of his people.

* Let's have this line
* represent that relation-
* ship.

[Draw double-headed arrow and label it Job Relations]

Job Relations are the everyday relations between you and the people you represent.

The kind of relations you have affects the kind of results you get.

Relations with some are good, with others are poor, but there are always relationships.

A steward gets results through people



Poor relationships cause poor results; good relationships cause good results.

[Illustrate by use of chart.]

45 min. to here

When a steward wants to meet any of these responsibilities effectively, he must have good relations with his people.

Allow 10 min. PRESENT FOUNDATIONS FOR GOOD RELATIONS.

Experience shows that successful stewards use definite foundations for good relations. They find that these foundations keep the job relations line strong.

Write on top center of board the heading:

Foundations for Good Relations

1.* There are some things that you and I as stewards can do,
* day in and day out, about keeping the job relations line
* in good condition.

* For instance, we can let each member know his rights and
* responsibilities.

Write under heading:

Let each member know his rights and responsibilities

Suppose a member is passed over while new men get the breaks - all because he doesn't know what the union can do for him?

Do you think that's good union job relations if a member doesn't even know what rights he has?

We know it isn't.

Don't you want to know your rights? What the union is doing for you? How your grievance is progressing?

Should a member also know his responsibilities - what the union expects of him?

I wonder if these people [point to board] would like to know their rights and responsibilities. Wouldn't that strengthen that job relations line?

2.* Another foundation for good job relations is "Give credit
* when due."

[Write on board:]

Give credit when due.

If you have a member who has been assigned to some committee work that doesn't particularly benefit him, and he sticks to the job and carries it through, how would it be to give him some credit.

Maybe there is someone who's never done anything outstanding, but who's always paid his dues on time and never caused any trouble. Could you give him some credit?

Do you think it is good job relations to give credit when due? Is that the kind of treatment you like?

I wonder if these people [point to board] wouldn't like it. Would it help the job relations line if we did give people credit when due?

3.* Another foundation for good relations is "Tell people in
* advance about changes that will affect them."

[Write on board:]

Tell people in advance about changes that will affect them.

Suppose someone tells you at quitting time that there is to be a committee meeting immediately.

Are you going to like it?

Are you going to think about your car pool?

You at least want a chance to have your say.

Would it be a good idea to tell people in advance about changes that affect them?

Do you think that would help the job relations line?

I wonder if these people [point to board] wouldn't like to know in advance about changes that affect them.

4.* Another foundation for good relations is "Make best use
* of each member's ability."

[Write on board:]

Make best use of each member's ability.

Have you ever known a member who went sour because he felt there was union work he could do if anyone asked him?

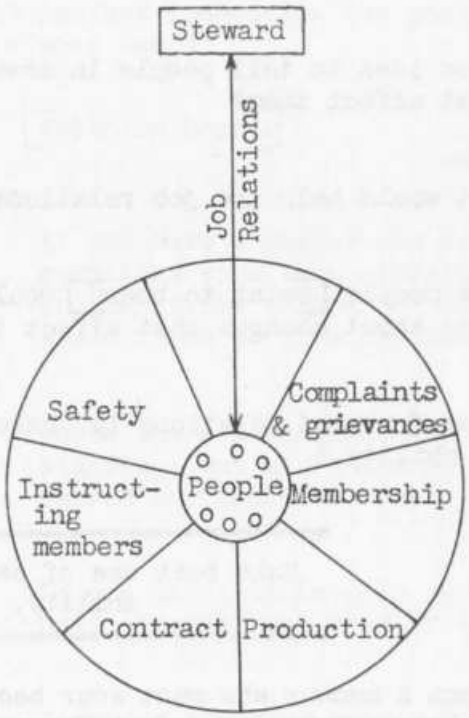
Have you ever looked around to see whether you were using the abilities the members have? Do you know what their abilities are? Make sure you don't play favorites.

I wonder if we always make best use of the ability of these people [point to board].

These foundations are important to everyone. Using them will smooth job relations and assist us as stewards to meet our responsibilities [point to board].

[The board will look like this:]

A steward gets results through people



Foundations for good relations

Let each member know his rights and responsibilities

Give credit when due.

Tell people in advance about changes that will affect them.

Make best use of each member's ability.

55 min. to here

Allow 10 min. DEVELOP THE "INDIVIDUAL" CHART.

* Does this mean that all these people are alike? The
* answer is no. People are different and must be
* treated as individuals.

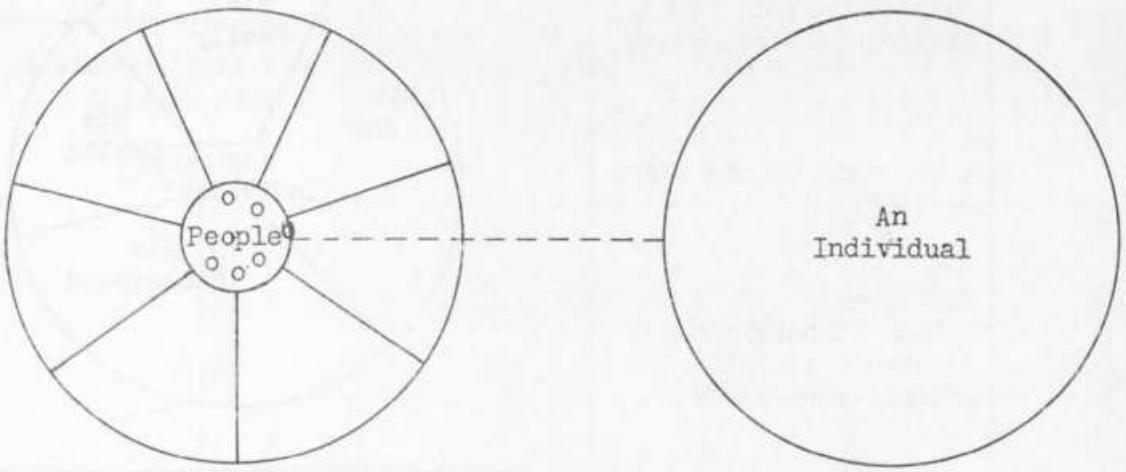
Write on top right third of board:

People must be treated as individuals

All right, no two of us are alike.

Let's pull out one of these persons and see why he is different.

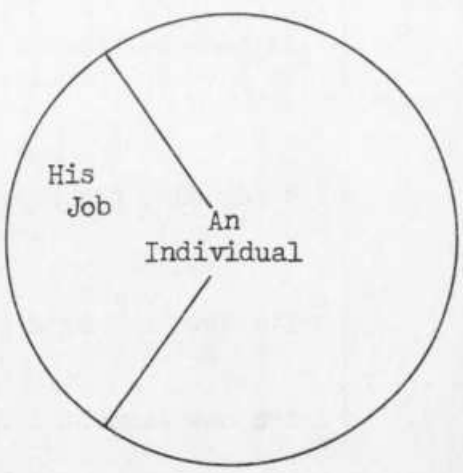
[Draw a dotted line extending from one of the small circles to another big circle. Label it AN INDIVIDUAL. Do not erase the foundations.]



We'll let this circle represent any one of these people.

* So let's take a look at this union member and what affects
* him as an individual. We know that his job is a big factor.

[Write His Job on left one-third segment of circle.]



Now what else? What other things affect him as an individual? What makes one toolmaker different from another toolmaker:

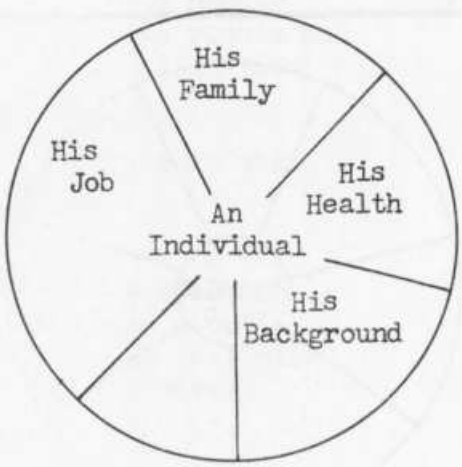
Write in interests as members suggest. Be sure to include Family, Background, and Health.

Give examples for each, such as:

Family -
Does it make a difference if he's happily married?

Background -
Is there a difference between the person who was raised on a farm and one who lived in a city?

Health -
Suppose he's going to have an operation?



You may also get Recreation, Wages, Love Affairs, Education.

Write down not more than two or three of these.

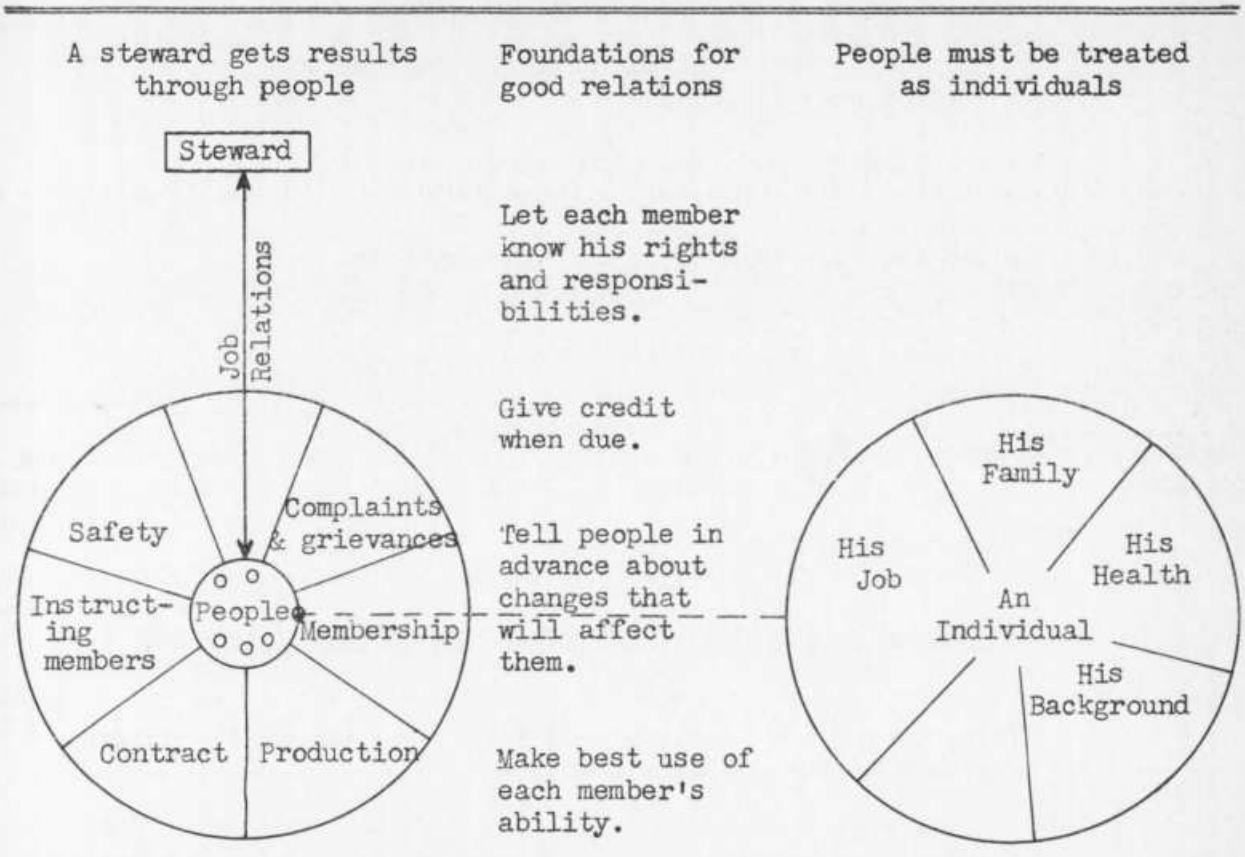
Leave one segment for other factors.

There are, of course, many additional things which affect the individual on the job.

[Leave one section unlabeled.]

We will let this segment represent Other Factors.

[The completed chart work will look like this:]



All of these really affect the individual who belongs to your union.

He doesn't leave part of himself at home when he comes to work or to a union meeting.

The things noted in the circle make individuals different.

You need to know this person as a separate individual because he is different and that affects him on the job.

Summarize the chart:

A steward gets results through people.

By using the foundations we can improve our relations with people.

A steward must treat his people as individuals.

These are the basis for good job relations.

1 hr.
5 min.
to here

But their use will not prevent all problems.

Allow
5 min.

DEFINE A "PROBLEM."

What do we mean by a problem?

* A problem is ANYTHING THE STEWARD HAS TO TAKE ACTION ON.

This may include handling a complaint, or any small incident you have to do something about.

Changes, interruptions, and failures do occur; and situations do arise. These cause problems.

Each steward needs skill in understanding individuals, sizing up situations, and working with people.

We are going to get experience in using a method for meeting problems.

What we are going to be working on is the relation between you and people you represent.

This relationship is the same whether you are working on a complaint, a grievance, getting dues paid, or any of your other responsibilities.

These relations are important.

They affect the job.

Good relations give you good results.

Poor relations give you poor results.

1 hr.
10 min.
to here

Conditions change all the time - so do relations.

Allow
15 min.

INTRODUCE T.W.I. METHOD.

Tell the problem about Mike.

Do not read. The trainer must be able to tell this well, changing no ideas, but using words natural to him.

1. Let us take a look at the action of one steward - something that happened in a war production plant.

One day the steward walked into the pay office and saw Mike sitting there. He asked Mike what he was doing and Mike said he was waiting for his pay-off as he had been fired. It seemed a plant protection man had reported him for being asleep in the warehouse.

The steward asked him if he had been asleep, and Mike said he had - for three hours. Mike said he needed his job. Now the steward knew that Mike had a bad record and that he'd been warned by the supervisor.

Only two months ago the union had told him they were fed up and couldn't keep on interceding for him forever. Other people had complained about his loafing. He had been found sleeping before by the plant protection department.

The steward decided that he couldn't do anything more for him and said "So long, Mike - better luck next place."

[Erase charts from board]

2. [Discuss.]

This steward had a problem, didn't he?

How do you think he handled it?

* Just what was this steward trying to accomplish?

[Get the group to say:]

He wanted to get Mike a square deal.

[If necessary, ask:]

What is this steward's responsibility to Mike?

[If the group tends to agree with the steward, remind them that what he wanted was "a square deal for Mike."]

But he made no attempt to do anything about it.

Would you have taken this action?

[Do not let this go into extensive discussion.]

[If these points do not come out in the discussion, make them yourself:]

He made no attempt to find out why Mike was asleep.

The steward jumped to the conclusion that Mike was after all just an irresponsible person. Mike had been around long enough to know better.

3. [Tell what happened next.]

The next day people in the department came up and told the steward that Mike was sick the day before. He decided to rest a bit and went to sleep. He'd been very steady and reliable since his soldier son-in-law was killed two months ago. He needed all he could make because he had his daughter's children to support. Mike was sick yesterday and he was still sick that day.

4. [Discuss.]

Do these additional facts throw more light?

Mike had had a good record for a while, but the steward didn't think of that.

The steward couldn't think of anything good about Mike.

Mike had gone to sleep because he was sick.

Let's look at what the steward did from three angles:

How would Mike feel toward the steward?

How did the other people in the department feel about the way he treated Mike?

What did it do to union relations?

It was the wrong thing to do on all three counts.

5. Is there a way to avoid mistakes like this?

What could Mike's steward have done first?

[If someone suggests "Talk with Mike" or "Give him a chance to explain," ask, "Do you mean 'Get the facts'?"]

[Write on board:]

Get the facts

It certainly is important to "Be sure you have the whole story."

Then what would he do with these facts?

[Get group to say and write on board:] **Weigh and Decide**

Aren't we all tempted to jump at conclusions?

After deciding, what would he do next?

[Get group to say and write on board:] **Take Action**

It's easy to pass the buck, isn't it?

After you take action, is it a good idea to see how it came out?

[Write on board:] **Check Results**

Did Mike's steward's action strengthen union job relations?

1 hr. 25 min. to here

[Leave steps on board.]

Allow 15 min. HAND OUT CARDS, SUMMARIZE 4-STEP METHOD.

[Distribute cards individually - STRESS THEIR IMPORTANCE.]

Read the "How to Handle a Problem" side of the card and comment as follows:

* Determine objective.

We agreed that the steward wanted to get a square deal for Mike.

An objective is something to shoot at. It's what you want to accomplish.

* 1. Get the Facts.

We said that Mike's steward did not get the facts.

* Review the record. (source of facts)

The steward recalled Mike's previous bad record but evidently overlooked his recent good record.

All records are not paper records. You include what you know about someone.

* Find out what union and plant rules and customs
* apply. (source of facts)

There were rules in both the plant and the union.

There are some things that are accepted as what you do in the union and plant. Some are written and they're rules. But the unwritten customs are just as strong. You also have to consider any precedents which have been established.

* Talk with individuals concerned. (source of facts)

Mike's steward did not take the time to talk with Mike or anyone else in the department.

* Get opinions and feelings. (source of facts)

This steward just didn't get the opinions of any of these people and he didn't think how they might feel. Remember that what a person feels or thinks, right or wrong, is a fact to him and must be considered as such.

* Be sure you have the whole story. (a caution)

You pointed out that the steward didn't have the whole story - he did not know what had happened in Mike's family or that the man was ill.

* 2. Weigh and Decide.

Did the steward do a good job on this step?

* Fit the facts together.

Look for gaps and contradictions. In this one there were gaps, but the steward didn't try to fill them in. Why Mike was asleep is the big gap in the facts.

* Consider their bearing on each other.

This steward only looked at the bearing of some facts on each other. He overlooked Mike's current good record and decided that he was back in the old rut.

* What possible actions are there?

This steward thought there was only one thing to do - turn Mike down. There is usually more than one possible action if we stop to weigh the facts.

* Check union and management practices and policies.

The steward has to know the ground rules. He has to know whether his action is within company policies and practices and within union practices and policies.

* Consider objective and effect on individual, group,
* union, and production.

Mike's steward did not consider the effect of his action on his objective, on Mike, on the other people, on the union, or on production.

* Don't jump at conclusions. (a caution)

Do you think that Mike's steward jumped at a conclusion?

* 3. Take Action.

* Are you going to handle this yourself?

It was up to Mike's steward to handle this problem.

* Do you need help in handling?

Sometimes we can get help from another department - from an officer or from the district office.

* Should you refer this?

You have to decide whether a problem is beyond your own authority for action.

* Watch the timing of your action.

The timing does influence the effectiveness of what you do. Think of the effectiveness, not just your convenience.

* Don't pass the buck. (a caution)

I guess we all know what this means - and we can say for Mike's steward that he didn't pass the buck. He thought he knew enough about this to turn Mike down.

* 4. Check Results.

It is always important to consider how you are going to follow up. This steward didn't have to check results - they came right to him.

* How soon will you follow up?

You make your first check as soon as you can reasonably expect results.

* How often will you need to check?

Sometimes you keep an eye on something for quite a while just to make sure that your action hasn't caused another problem. The way the steward treated Mike caused plenty of other problems.

* Watch for changes in attitudes and relationships within
* the union and toward management.

You have to look at what your action did to the group as well as to the individual person concerned.

* Did your action strengthen union job relations?

We've seen that this steward fell down straight through because

he failed to get the facts
he didn't even consider all the facts he had, so his action was wrong, and
he got poor results

Ask stewards to turn the cards over. Read the "Foundations for Good Relations," commenting as follows:

* Let each member know his rights and responsibilities.

Wouldn't it prevent a lot of problems if every member understood?

* Tell him what the union can do for him. (action point)

This is a never-ending job.

* Tell him what the union expects from him. (action point)

This is important for every steward to remember.

* Give credit when due.

Don't we all respond to recognition?

* Look for extra or unusual performance. (action point)

Sometimes it's the man who's unusually reliable who deserves some form of credit.

* Tell him while "it's hot." (action point)

Don't get so busy that you overlook some simple thanks right when they are due.

* Tell people in advance about changes that will affect them.

All of us have to get used to changes.

* Tell them why if possible. (action point)

Give reasons, not arbitrary decisions.

* Get them to accept the change. (action point)

Help people to understand.

* Make best use of each member's ability.

Won't this help you do a better job?

* Look for ability not now being used. (action point)

Are you sure you know just what abilities there are in your group?

* Never stand in a man's way. (action point)

Has this ever caused trouble for you?

* These are the basic rules for good relations. They will
* do a job for you if you use them. If they are used they
* will keep many problems from coming up.

Remember that you need to treat all people as individuals.

These foundations will smooth union job relations but they will not insure you against problems.

We have stewards because there are problems to handle.

1 hr.
40 min.
to here

We are stewards because the union has designated us to handle these problems.

Allow
5 min.

SUMMARIZE.

1. Good stewardship includes two points:

Working with the individuals you represent in a way which makes everyday relationships smooth and prevents many problems. This is covered by the Foundations.

Handling problems that do arise is covered by the 4-step method.

2. The steward's job can't be run from a set of rules any more than you can learn to play baseball from a book. You can read about pitching a curve but you can't get the ball to curve until you have practiced.

3. Conditions do change; interruptions do occur; problems do come up. The Foundations and this 4-step method will help you to handle these problems. This is a pattern to follow.

   This method applies whether there is a Wagner Act or not, whether you are dealing with a man or a woman, Negro or White, Republican or Democrat.

   Why is this so? Because people are people once you get under their skins, regardless of race or color.

DISCUSS HOW PROBLEMS COME UP.

* Let's look at the way PROBLEMS come up.

1.* If you're on the watch in your department you'll be
  * tipped off when you notice changes in people's work or
  * attitudes. Suppose a man suddenly gets quarrelsome with
  * everyone around him - that's a problem, isn't it?
  * Effective stewards get in on these early.

2.* Or, you may even have a situation to size up before it
  * happens. The union may change a policy, or suppose
  * management is going to bring a group of women into a
  * department where there have been only men. You may want
  * to do some preventive work and size up that situation
  * in advance so that you won't have a problem to handle
  * later.

3.* Sometimes they "come to you." A member may ask for a
  * rate increase or a transfer, or he may have a problem
  * or question.

1 hr. 45 min. to here

4.* Others, you "run into." Suppose you tell a member to * abide by union policy, and he won't do it. Or perhaps * it's a member who refuses to pay dues.

Allow 15 min.

CONSIDER STEWARD'S PROBLEMS ON THE JOB.

1. [Distribute problem sheets.]

Some of the same problems come to all stewards.

Maybe you have all of these - or none.

[Ask group to check problem sheets.]

[Read five or six out loud - discuss, not at length.]

[Let the group read all the way through.]

In this group we are going to be working on your own problems - the things you have to do something about.

[Comment on number of problems group has.]

2. [Describe practice in following sessions.

See Tips for Trainers.]

Each of you will have a chance to bring in a problem during these sessions.

We will work on these problems to develop our skill in the use of the 4-step method.

Do you ever have to handle one like any of these?

UNION JOB RELATIONS SITUATIONS AND PROBLEMS

Someone kicks about working conditions.
Complaints about slow handling of grievances.
Member wants to change jobs often.
Lack of interest in union activities.
Worker violates union contract.

Member feels he is being pushed.
Member unreasonable in demands.
Man goes over your head to complain.
Member takes chances at work.
Worker fails to come to work every day.

Member resents changes.
Worker dissatisfied with union agreement.
Worker irritable and touchy.
Operator refuses to do certain work.
Careless with materials and equipment.

Member gets discouraged learning job.
Former steward causing trouble.
Member wants more money.
Employee kicks when not promoted.
Pay differential causes trouble.

Plant is going to start hiring women, or Negroes.
Drop in overall production.
Friction between shifts.
Members fail to attend meetings.
Defeated candidate not cooperating.

We are not going to criticize the steward or pass judgment on his action.

When you bring in your problem,

REMEMBER:

* Our definition of a problem is something the steward has
* to take action on. This includes recommending action or
* sending a complaint or grievance on to a further step,
* or telling someone he has no basis for his complaint and
* that no action can be taken.

* It must involve you and the people you represent - other-
* wise we may not have all the facts or know the individuals
* concerned.

* You may bring in a problem that you have handled recently.
* These problems are good because the facts are easily
* recalled.

* You may bring in a problem on which you have not as yet
* taken action. Pending problems are always good.

* You will help all of us if you will bring some problems
* that didn't turn out quite right, so we can take a look
* at why they turned out the way they did.

* It will also be helpful if you bring in some problems of
* relationships entirely within the union, which do not
* involve management or the plant. But remember, it still
* must be something you can do something about.

Please do not bring in the most involved problem that you have run into in all of your years of union experience. When problems are pretty big, or involved, most of us usually say - "This is a pretty tough one. I'd better get the facts and weigh them carefully."

Stewards tell us that they usually go a bit sour with the smaller problems as they appear to be so insignificant that they are prone not to get the facts, jump at conclusions, etc.

We want to get experience and practice here so that we will instinctively think through small problems, so that these small problems will be handled satisfactorily and forgotten.

Some stewards say that most all of their large problems result from small problems which were poorly handled. If there is a little blaze, we usually can put it out with a cup of water, but if it develops into a big blaze, then we have to call out the fire departments from neighboring towns.

Sometimes we overlook the little things. You give someone union work to do and he just doesn't do it.

You have a member who doesn't get to work on time.

These small incidents are problems.

Because of our time limit we have to have short and relatively simple problems. This is necessary because we are going to apply the entire method, not just the beginning of it. We can learn the method just as well on short problems as on long ones. If we get practice and form a habit, it will be easier to use the method on more involved problems, and it will make the handling of those problems shorter.

Remember that the steward does much preventive work by handling his problems while they are new and small rather than waiting until they are older and more complicated.

3. Do any of you have any problems, like these on the problem sheet perhaps, facing you? I mean some you have to handle yourself? Well, will you, ... and ..... tell us about one at the next meeting just as I told you about Mike, so we all can take a look at them together?

[Explain procedure for handling stewards' problems.]

4. I'm going to bring in a problem too.

Our purpose in all these problems is to get practice in the use of the 4-step method. We only acquire skill through practice.

5. You can begin to use these foundations and the four steps right away - on the job.

That's where this plan pays dividends.

2 hrs.
to here

[Thank group for interest and participation.]

[Clear the board]

IMPORTANCE OF GETTING THE FACTS

Allow 5 min.

REVIEW 4-STEP METHOD.

1. [Briefly make appropriate opening comments.]

2. Let's take a look at our 4-step method of handling problems.

   What are the four steps a good steward follows when he takes action on a problem?

   [Draw from group and place in upper right hand corner of board:]

   1. Get the facts.
   2. Weigh and decide.
   3. Take action.
   4. Check results.

3. We are setting up a pattern here. We handle these situations in slow motion, in order to get a closer look at them. Actually, on the job, even though this method is many times speeded up, you still go through the same steps.

5 min. to here

4. This may seem to take time - but if it saves time in the long run, isn't it surely worth it?

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Allow 35 min. DEVELOP ABILITY IN USING THE METHOD by presenting and discussing the Tom problem.

1. [Focus attention on importance of Step 1 - Get the Facts.]

In the use of this method Step 1 is basic, because the success of Steps 2, 3, and 4, depends on getting all the facts.

[Underline Step 1]

1. Get the Facts

In some problems ALL THE FACTS are not obtained until personal opinions and feelings are considered. These personal opinions and feelings must be considered as facts. What a worker thinks - right or wrong - is a fact to him and must be considered as such.

I am now going to tell you about a problem in which a steward talked with a man and, by getting his opinions and feelings, obtained important facts.

The purpose in relating this particular problem is to stress not only the importance of getting the facts, but also to give us an opportunity to see exactly how this steward talked with this member in order to get personal opinions and feelings.

This problem is one where what is said and how it is said is very important. I'm going to read this to you, so we'll get just what was said by both of them.

2. [Read the problem. MAKE IT LIVE. DO NOT READ IN A MONOTONE.]

A steward is out in the shop and notices a workman is reaching into a machine. In this particular plant the bargaining agreement between the union and management had created a safety committee which made the steward jointly responsible with the departmental foreman for the prevention of accidents within their departments.

Steward calls out: Tom, I've told you to shut off that machine when you take off the guard.

[Trainer comment: The steward is mad. He's apparently warned Tom before.]

Tom yells back: If you want to report me, why don't you do it instead of nagging at me all the time.

[Trainer comment: Tom is mad, too.]

Steward: Keep your shirt on! I don't want to get you in trouble. I just don't want you to get your hand mashed. The number of times that machine has to be adjusted makes me think there must be something wrong with it.

Tom: Well, I'm not going to take any more panning.

[Trainer comment: The steward is certainly facing a problem and here is what went through his mind very quickly before he took any action.]

Steward: Now, let's see. I've know Tom a long time. He's been one of the best men in the department and a good union member. But, lately, he's always in trouble, and the superintendent is riding the union about accidents. Tom is reckless as the devil about his machine. But that isn't all. Yesterday I had to get after him about his dues. And he hasn't been to a union meeting in months. What's happened to Tom? I guess I have been on his neck a lot. But it was always something that had to be done. And we can't have him taking chances the way he does.

[Trainer comment: Do you notice how this problem came up? There had been a change in Tom, but the steward didn't get into the problem then. He waited until it burst in his face.]

Steward: Suppose we get together later and talk this over. If there's something wrong with that machine we'll report it.

[Trainer comment: Why do you think the steward didn't talk to him then? Do you think it would have done any good to stay there right then and argue with him? He isn't going to talk in the department or while Tom is mad.]

That noon the steward watched for Tom and took his lunch over and sat down beside him.

Steward: Hello, Tom. Now, Tom, I guess you think I've been riding you. I don't want to do anything like that. I felt I had to yell at you today because you were doing something dangerous. And there've been a couple of other things lately that the union just can't put up with.

Every time I see you taking a chance that might cause trouble, I've got to stop you. When you don't pay your dues, why then I've got to say something about that too.

Now is there something the matter with the machine? I know you're always raising the guard and reaching into it. If there's something wrong with that machine, I want to get it reported.

[Trainer comment: What is the steward doing here? The steward is trying the obvious thing first - to see if the trouble is connected with the machine.]

Tom: Well, if you think I'm going to run over to that switch and pull it, and hang the "don't touch" sign on it - you're just crazy. They're yelling now about how little I get done. If I had to spend half of my time turning that switch off and on, I wouldn't get anything done. And the other day you said there'd been a report that I was letting parts that were below standard go through. Well, if I didn't fix that machine they'd all be below standard.

Trainer comment: Tom isn't going to make it easy, is he? The steward could have cut in there and told him it wouldn't take half the time to turn off the switch. Here again he could have argued, but he had gotten Tom off to the side because he wanted to talk with him, so he wasn't going to interrupt him.

Steward: Now, Tom, there's more to it than breaking a safety rule. There's a reason behind that rule. You're apt to get your hand mashed.

Tom: And that'd cost the company money, wouldn't it? And then they'd razz the union.

Trainer comment: The steward might think that Tom was sore at the company about money - or would that be jumping at a conclusion?

Steward: Oh, sure it would cost the company money and they ride us plenty about accidents. But have we made you think that's all we're interested in?

Tom: Well, that's all that counts with some people.

Trainer comment: He's bitter about something.

Steward: It'd cost us a good man. And that's a hard thing to replace.

Tom: Well, not everybody feels that way.

> Trainer comment: He seems to be thinking about the importance of money to some people. The steward has a cue here - will he follow it up? Tom has been pretty hard to talk to. What does the steward have to follow up from here?
>
> Do not allow extended discussion. If the group does not make the point, say that Tom seems to be thinking about the importance of money to somebody.

Steward: Why are you so strong on the money angle? You're doing all right that way, aren't you? Seems to me you told me last spring you were going to build on that land of yours out on the pike. When are you getting married? When you have a wife she won't want you to take chances.

Tom: Oh - nobody cares if I do get a hand off.

Steward: Your girl would care.

Tom: I don't have a girl any more.

Steward: I'm sorry, Tom. I just wanted to get you thinking of what an injury to you might mean to somebody else.

Tom: Well, it doesn't mean anything to anyone now. Nothing about me would hurt her. Why, she knew I was going to start to build, but she married someone else. So, all I have is a half-finished house. And that's all I've got to show for it.

Nobody cares what happens to me any more. And I don't need to try to make any more money, or save it either. It changes a lot of things.

[Trainer comment: This takes careful handling. The steward wants to get Tom back to normal production; he wants to stay on good terms with Tom. Now the steward has a chance to make a speech - he could tell Tom he was lucky to get rid of her, but he's going to listen to Tom, and not do all the talking himself.]

Steward: A blow like that's bad, and it's no use saying it isn't. But sometimes you just have to take it on the chin. Some things can be fixed up, though. And I wish you'd see your way clear to helping me figure out what's wrong with the way that line is running. It's getting you in trouble, and that gets me in on it too.

I can see why you have gotten a bit careless about taking chances. But I know you wouldn't have had to take those chances unless something else had been wrong. Now, is the machine worn? Does it need overhauling? How are the tools?

[Trainer comment: There seem to be two things to look at: (1) the man and (2) the machine.]

Tom: No, it isn't the machine. The parts aren't coming through the same as they used to. There's a burr left on them; and after so many have gone through, well, I just have to clean the machine out.

[Handle this problem according to standard procedure.]

3. Just what is the steward trying to accomplish?

[Get from group and place on board:]

Just what is this steward trying to accomplish?
To make Tom a safe worker.

4. What are the facts?

Get facts from group and put on board briefly. See that these are included, but not necessarily in this order:

FACTS

Was a good worker
Quality and quantity down
Broke safety rule
Careless
Warned before
Talked back
Stopped attending union meetings
Back on dues
Lost his girl
Felt nobody cared
Burrs on parts

Check subheads of Step 1. USE CARD.

Be sure that you leave group with the realization that the steward got three very important facts because he talked with the individual to get opinions and feelings.

5. Consider Step 2, according to standard procedure.

Get possible actions from group.
Some may be -
Warn about safety rules.
Recommend penalty layoff.
Report bad parts.
Tell him losing girl isn't your fault.

Weigh and Decide

Possible actions

_____
_____
_____

Test possible actions against objective and probable effect on individual - group - union - production.

6. Now let us see what did happen in this particular problem.

[Continue to read the problem.]

Steward: I can see why that would cause you trouble. Now, I'm sorry about your tough luck. But I do thank you for helping me. I'm going to report the bad parts to the supervisor.

[Trainer comment: Throughout, the steward had listened sympathetically to Tom, he had encouraged and helped him to talk about the things that were important to him. Now that he had reached something specific, bad parts, he's going to talk to management about it.

Later the steward goes into the supervisor's office.]

Steward: I want to talk to you about the parts the department is getting from the punch press. They're not coming through clean. There's a good operator on the line, and it's making it pretty dangerous for him if he tries to keep up production.

7. What were the additional facts that the steward got by talking with Tom and getting his opinions and feelings?

[Point out on board THE ADDITIONAL FACTS:]

Lost his girl
Felt nobody cared
Burrs on parts

8. The steward looked at all the facts and he felt he had a complete story.

He found out why Tom was off the beam.

Doesn't this indicate that sometimes an addition of one more fact will preclude or suggest a possible action? Do you think we would have had the same possible actions if these facts had been missing?

9. What action did he take?

[Help group give steward's action. Write this action on the board:]

ACTION
Told Tom he was sorry
Asked Tom's help
Reported faulty parts

What facts did this steward use in arriving at this decision?

[Handle Step 3 as in the standard procedure.]

Let's look at Step 3.

Are you going to handle this yourself?

It was this steward's problem.

He had the responsibility to take some action.

Need help?

Yes, he got Tom's help - no outside help necessary.

Refer to someone else?

To get good parts - but didn't tell Tom's trouble.

Timing?

Tom's steward didn't lose any time in acting.

[Stress importance of good timing.]

10. [Handle Step 4 as in the standard procedure.]

How soon do you think he'll follow up? More than once?

What will he look for?

Do you think Tom's steward will accomplish his objective?

Did this steward use the 4-step method up to now?

11. [Conclusion to the Tom problem.]

You remember the purpose of this problem was to stress not only the importance of getting the facts, but also to see how this steward got personal opinions and feelings. You can see what might have happened if this steward had not decided to get more facts before he took his action.

Do you think Tom's steward was justified in getting him to talk about his personal affairs? This depends on the individual and the problem. This steward knew his individual well enough to talk with Tom.

Did you ever have a man go sour when something happened in his family? He brought what happened outside of work into the plant with him - just as Tom did. That's why the steward has to concern himself with personal feelings.

Did you notice that when Tom's steward talked to the supervisor he didn't reveal the personal information he had about Tom? He could have said, "I have a jilted guy down here," but he said, "I have a good worker down here."

40 min. to here

[Clear board, except question and steps.]

Allow 5 min.

REMEMBER WE SAID THAT OPINIONS AND FEELINGS are hard to get. We all can learn and develop this skill. Once this skill is acquired it becomes a useful tool for a steward.

[Write on board:]

How to get opinions and feelings

1. Just how did Tom's steward find out about Tom's opinions and feelings?

   His steward could have argued with Tom about its taking him half his time to turn off the switch. Is anything ever satisfactorily settled by an argument? Our first tip, then, is "Don't argue."

[Write on board:]

Don't argue

2. It took some encouragement to get Tom to talk about what seemed important to him, didn't it? The steward had to help him say what was wrong. The tip then is to, "Encourage him to talk about what is important to him."

[Write on board:]

Encourage him to talk about what is important to him

3. If you are telling a story and someone interrupts you, do you feel like continuing it? After Tom started talking did the steward interrupt him? Our tip is, "Don't interrupt."

[Write on board:] Don't interrupt

4. Could the steward have spoiled everything by jumping at the conclusion that Tom was sore about money? The tip is, "Don't jump at conclusions."

[Write on board:] Don't jump at conclusions

5. The steward had a chance to make a couple of speeches, didn't he - on safety - on how lucky he was to get rid of the girl? You will notice he didn't do all the talking himself. The tip is, "Don't do all the talking yourself."

[Write on board:] Don't do all the talking yourself

6. Was Tom's steward a good listener? If you want to get opinions and feelings you have to listen, don't you? Our tip is, "Listen."

[Write on board:] Listen

[Bring out to the group the importance of using these tips.]

45 min. to here — [Clear the board - except question and steps.]

Allow 1 hr. 10 min.

STEWARDS' PROBLEMS.

1 hr. 55 min. to here

[Handle two problems.
35 minutes each.
Standard procedure.]

Allow 5 min.

[MAKE SURE 3 PROBLEMS WILL BE PRESENTED AT NEXT SESSION.]

1. I'll bring in another problem at the next session.

2. Will all of you have one ready?

Now you can bring in a problem you want to size up to try to take some preventive action.

Or you can bring one that's on your hands right now.

Or perhaps you have just finished a problem we can consider.

But we do set up these requirements;

* It must be something between you and the people
* you represent.

* It must be a problem which you have to handle, not
* someone else's job.

* You must have the necessary information about the
* employee or employees involved - age, length of
* service, experience, etc.

..... and ..... brought in the kind of problems we have to live with. That's the kind we want.

3. Do all of you have a problem that you can tell us about? To practice our 4-step method?

[If any member of group says he does not have a problem, use the problem sheet again.]

2 hrs. to here

[Remind the group that, to receive a certificate, each member must bring in a problem, participate satisfactorily, and attend all sessions.]

[Clear the board.]

BLACKBOARD GUIDE - TOM - PROBLEM NO. 2

Just what is this steward trying to accomplish?

To make Tom a safe worker.

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Facts

Was good worker
Quality and quantity down
Broke safety rule
Careless
Warned before
Talked back
Stopped attending union meetings
Back on dues
Lost his girl
Felt nobody cared
Burrs on parts

Weigh and decide

Possible actions

Warn about safety rules
Recommend penalty layoff
Report bad parts
Tell him losing girl isn't your fault

Action

Told Tom he was sorry
Asked Tom's help
Reported faulty parts

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STANDARD PROCEDURE

1.	Ask steward to tell problem.	Head of table. Does this involve you and somebody whom you represent? Have you taken action? Tell up to final action.
2.	How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3.	Get objective.	Get from steward: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4.	Get facts.	Steward first, as he recalls them offhand. Review subheads with steward - USE CARDS. Get additional facts from group - USE CARDS.
5.	Weigh and decide.	Fit Facts - Look for gaps and contradictions with group. Possible Action: What facts used? - from steward. Check practices and policies with steward. Check objective first with group, then last with steward. Check probable effect on individual, group, union, production, with steward.
6.	Balance of problem.	Facts used (from steward).
7.	Check Step 3.	Subheads - with steward. Why? - How? - Timing?
8.	Check Step 4.	Subheads - steward. When? - How often? - What?
9.	Check objective.	Steward.
10.	Foundations (if applicable).	Steward.

(Thank steward and clear board except question and steps.)

WEIGHING AND DECIDING

Before session starts, place on board:

Just what is this steward trying to accomplish?

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Allow 5 min.

REVIEW 4-STEP METHOD.

1. Now do we all have our cards? Suppose we take a look at the 4-step method. In our last session the problem I presented about Tom who lost his girl stressed the importance of getting the facts, with particular reference to personal opinions and feelings.

   We looked at the way a steward got the facts in order to make a good decision. It takes time to do this, but in the long run it does save time, doesn't it?

2. It is interesting to notice that a similar method is used by professional people. For instance, let us see how a doctor handles his problem?

   Step 1 - Does the doctor get the facts?

   Record - personal history - blood pressure - temperature

   Rules and customs - medical knowledge - practice - ethics.

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Talk - to get more facts, confidential.

Opinions and feelings - very important.

Step 2 - Diagnosis.

Fit facts together - assemble facts.
Consider bearing on each other - symptons.
Possible actions - medicine, operate.
Check practices and policies - must comply with laws.
Effect on individual - group - contagion.
Don't jump at conclusions - careful diagnosis.

Step 3 - Treatment.

Take action - prescribe, operate.
Handle yourself? - his specialty.
Help in handling - nurse, technician.
Refer - more experienced doctor, specialist.
Doctors don't lose face in doing this.
Timing - importance of timing.
Don't pass the buck.

Step 4 - Check results - X-ray.

How soon - depends on case.
How often - it differs.
Watch for - changes in condition.

This method we have been talking about works in other professions, doesn't it? The doctor in an emergency of life or death still takes time for all these steps.

3. Now let's turn the spotlight on Step 2 of our method, Weigh and Decide.

Good decisions must have a good foundation.
You must have the facts.
They must be weighed.

5 min. to here

[Underline Step 2.]

2. Weigh and decide

Allow 30 min.

PRESENT THE PROBLEM ABOUT THE OLD HAND.

1. Let's take a look at something that happened in a war plant and particularly at the decision the steward made since we are today stressing Step 2.

[Tell the opening of the problem.]

There was an old hand who was transferred into this department because he had been injured. He was breaking a safety rule when he was hurt. But the union had taken up the problem and got the transfer to a job he could do even if he did have a bad foot. That meant, of course, that he got full pay instead of workmen's compensation.

Now the old hand never showed that he appreciated what had been done. The steward couldn't get any cooperation from him at all. The supervisor complained about him all the time, too.

Everybody could see that he was loafing on the job. His foot was healed and he kept hounding the steward about getting transferred back to his old job. The steward was fed up.

One day the old hand yelled clear across the shop at the steward. "When are you going to get me my transfer? What do you think I pay dues for? Not to keep people like you in office!"

Everyone was listening. The steward was sore. He decided it was time to do something about this problem.

2. Comment on how problem came up - ran into it, but steward had warning - the old hand had been complaining for some time.

3. Get the objective from group and put on board.

Eliminate trouble in the group.

4. Continue with standard procedure to get these facts, but not necessarily in this order. Place on board.

Facts

Old hand - injured
Broke rule - hurt foot
Union assisted in transfer - full pay
Union action not appreciated
Uncooperative with steward
Loafed on job
Foot O.K. - wanted transfer
Steward fed up
Made a scene
Steward sore
Everyone listening

Review the card, subheads Step 1.

5. STEP 2 - FOLLOW STANDARD PROCEDURE.

Get possible actions from group. Some may be:

Ask that man be transferred
Ignore
Get other union members to help
Calm him down, then remind him what union has done for him
Tell him to quit if he doesn't like it

Weigh and decide

Possible actions

_____
_____
_____

[Test possible actions against objective and probable effect on individual - group - union - and production.]

6. Now let's finish the problem and see what actually happened.

Well, the steward let him have it. He told the old hand just exactly how lucky he was and how much the union had already done for him and that he wasn't going to do anything more.

But the old hand didn't let that end it. He went to his old boss and that supervisor took it up. The old hand didn't even know that the transfer had been to get him full pay. His old boss was glad to have him back, and fixed it up.

Then the president of the local heard about it - and he told that steward a few things. This old hand was one of the original members of the local, and he felt the younger members owed him quite a lot.

7. [Get additional facts from group and list on board under facts:]

Facts

Founder of local union
Didn't know union had helped him get full pay.

8. [Continue with standard procedure.]

[Write on the blackboard:]

Action

Told him union had done all it would for him.

Have group identify the facts which the steward used when he came to the decision that he wasn't going to do anything for the old hand.

Also have group identify the facts which were not used in the final decision.

Does this make a reasonable case for the old hand?

Does this indicate to you that, if the steward had intelligently weighed all the facts which he had, he would not have refused to help him?

Stress to the group that the steward gave weight to only a very few of the facts which he had as a basis for his decision.

Other stewards, by giving more weight to the facts which he missed, might arrive at other decisions, such as those already listed on the blackboard under Possible Actions.

9. Comment on Step 3 subheads - Standard Procedure. Have group follow cards.

Handle yourself? - This was his problem.

Help in handling? - Didn't ask for help.

Refer? - Didn't refer.

Timing of action? - Was this the time to take action?

10. [Comment on Step 4 subheads - Standard Procedure. Use cards.]

How soon? How often?

This steward did not have to check up on the results of his action. They were not satisfactory to the old hand and he went over the steward's head.

Changes in attitudes and relationships?

This steward lost standing with the individual, the group, and his union.

11. [Check objective.]

12. [Use foundation points as in standard procedure.

Hit hard on "Make Best Use of Each Person's Ability." (Prevention)]

13. It is interesting to note in this problem that even though the steward did not have all the facts, nevertheless he did not do a good job of weighing the facts which he had.

Perhaps if he had given more weight to several seemingly unimportant facts, he would not have taken the action which he did.

35 min. to here.

[Clear the blackboard except question and steps.]

Allow 1 hr. 25 min. STEWARDS' PROBLEMS.

Handle 3 problems.
2 problems 30 minutes each
1 problem 25 minutes
Standard procedure

MAKE SURE THREE PROBLEMS WILL BE PRESENTED AT NEXT SESSION.

2 hrs. to here

Re-emphasize what you mean by a problem; how they come up. Remind group that, to receive a certificate, each steward must bring in a problem, participate satisfactorily, and attend all five sessions.

Clear the board.

BLACKBOARD GUIDE - OLD HAND - PROBLEM NO. 3

Just what is this steward trying to accomplish

Eliminate trouble in the group

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Facts

Old hand - injured
Broke rule - hurt foot
Union assisted in transfer - full pay
Union action not appreciated
Uncooperative with steward
Loafed on job
Foot O.K. - wanted transfer
Steward fed up
Made a scene
Steward sore
Everyone listening

Weigh and decide

Possible actions

Ask that man be transfered
Ignore
Get other union member to help
Calm him down, then remind him what union has done for him
Tell him to quit if he doesn't like it

Action

Told him union had done all it could for him

STANDARD PROCEDURE

1.	Ask steward to tell problem.	Head of table. Does this involve you and somebody whom you represent? Have you taken action? Tell up to final action.
2.	How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3.	Get objective.	Get from steward: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4.	Get facts.	Steward first, as he recalls them offhand. Review subheads with steward - USE CARDS. Get additional facts from group - USE CARDS.
5.	Weigh and decide.	Fit Facts - Look for gaps and contradictions with group. Possible Action: What facts used? - from steward. Check practices and policies with steward. Check objective first with group, then last with steward. Check probable effect on individual, group, union, production, with steward.
6.	Balance of problem.	Facts used (from steward).
7.	Check Step 3.	Subheads - with steward. Why? - How? - Timing?
8.	Check Step 4.	Subheads - steward. When? - How often? - What?
9.	Check objective.	Steward.
10.	Foundations (if applicable).	Steward.

(Thank steward and clear board except question and steps.)

TAKING PREVENTIVE ACTION AND CHECKING RESULTS

Before session starts, place on board:

Just what is this Local Union President trying to accomplish?

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Allow 30 min.

PRACTICE ON STEPS 3 AND 4.

1. Make appropriate opening comments.

2. By the use of the Tom problem in Session II we discussed securing the facts through getting personal opinions and feelings.

   Using the problem about the old hand in our last session we practiced on Step 2, "Weigh and Decide."

   In this session we are going to hit hard on Steps 3 and 4, "Take Action," and "Check Results."

Underline Steps 3 and 4.

3. Take Action
4. Check Results

Now I am going to present a problem which shows how a local union president took action which was preventive, and how he checked the results of that action.

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3. Because of expansion, scarcity of labor, and many other reasons, changes are taking place in organizations throughout the country.

There are many different types of changes such as:

change in shift
change in arrangement of benches or machines

This problem illustrates ONE KIND of change.

4. Tell the opening of the problem of the woman supervisor.

The plant superintendent called Bob Jones, the local union president, into his office and told him that the management had decided to use women supervisors as well as men. The superintendent told Bob that he was going to fill supervisory vacancies with women on the basis of seniority and ability, as was the rule with men.

He also told him that both men and women supervisors were to have the same authority and the same opportunity for advancement. Bob considered this very carefully and reviewed the following facts.

One supervisory position had to be filled, and no qualified men were available. All men capable of supervisory responsibility had been upgraded or had been taken into the armed forces. Most of the new employees who had come to the plant in the last 18 months were women.

Bob was informed that a well qualified woman had been selected for the job. As she was to be the first woman supervisor in the plant, Bob anticipated trouble. This was a major change. It looked probable that both men and women members might not like having a woman in authority. More women supervisors would probably be appointed later.

This was the problem Bob faced.

Should he do anything about it?

5. Discuss how this problem came up - saw it coming.

6. Obtain objective - use standard procedure.

Get from group and place on board:

To get woman supervisor accepted

7. Go through Step 1 - Get Facts - Use standard procedure.

Get facts from group - list on board, but not necessarily in this order:

Facts

No women supervisors before
Rule - seniority - ability
Same authority and opportunity
One job open
No qualified men
Woman selected
Anticipated trouble

Review the subheads Step 1 - use standard procedure.

8. Go through Step 2 - use standard procedure.

List possible actions which group suggests. They may be:

mass meeting
notice on bulletin board
say nothing

Weigh and decide

Possible actions

9. Check all possible actions against objective, and probable effect on individual, group, union, and production.

10. Tell balance of problem.

Bob thought the situation over pretty carefully. Then he talked individually with his fellow union officers and also he talked individually to those of the members who were looked on as natural leaders. He gave them the facts and asked for their help.

There was quite a commotion - some members said they wouldn't stand for it. Bob gave them a chance to do their talking and blowing off. Eventually the workers agreed.

By the time the new supervisor took over her work the outburst was over and the members cooperated in accepting her. Before she went into her department Bob talked with her. He told her that since she was going to be the first woman supervisor in the plant she might run into some difficulty and that she must not be easily offended. He asked her to do her best because it would not only affect her but also other women members of the union who would be appointed as supervisors later.

During the first day on her new job, Bob talked with his fellow union officers and later in the day with the natural leaders he had talked with before. They informed him that apparently the new supervisor was accepted and everything was O.K. Bob, to be sure that his preventive action was effective, kept in close touch with the situation for some time.

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11. [Get union president's action from group and list on board:]

Action

Gave the facts in advance to fellow officers - natural leaders
Asked their help
Let them blow off steam
Asked cooperation of new supervisor

What facts did Bob consider?

12. [Discuss Step 3, TAKE ACTION - Standard Procedure - Use cards. Get from group or make the following points yourself.]

Bob handled this himself - why?

Bob felt it was his job as local union president, and he was best qualified to handle it.

Did Bob get help? What advantage was it?

Bob got help from fellow officers and natural leaders because they were in a position to help him get acceptance of the change.

Should Bob have referred this to his district office?

Bob felt he should handle it.

In what way did Bob's timing contribute to the success of his action?

Bob allowed just the right time for them to blow off steam and cool off before the woman supervisor took over.

Could Bob have passed the buck? How?

Could have blamed management for a bad idea.

13. [Discuss Step 4, CHECK RESULTS, Standard Procedure. Use cards.]

How soon? Why was it important for Bob to check immediately?

This change affected the whole plant.

How often? Bob kept in close touch with the situation. Why?

Bob must check closely until he is certain the change is accepted.

Did Bob check effect upon attitudes, relationships, and output? What did he look for?

Good attitude of fellow officers indicates acceptance of change.

Good relationship with members in her department proves her acceptance.

Did Bob accomplish his objective? How did he know. He used Step 4.

14. What foundation points were used in this problem?

[Bring out Foundations 3 and 4:

"Tell people in advance about changes that will affect them."

"Make best use of each member's ability."]

30 min. to here

[Clear the board except question and steps.]

11. [Get union president's action from group and list on board:]

Action

Gave the facts in advance to fellow officers - natural leaders
Asked their help
Let them blow off steam
Asked cooperation of new supervisor

What facts did Bob consider?

12. [Discuss Step 3, TAKE ACTION - Standard Procedure - Use cards. Get from group or make the following points yourself.]

Bob handled this himself - why?

Bob felt it was his job as local union president, and he was best qualified to handle it.

Did Bob get help? What advantage was it?

Bob got help from fellow officers and natural leaders because they were in a position to help him get acceptance of the change.

Should Bob have referred this to his district office?

Bob felt he should handle it.

In what way did Bob's timing contribute to the success of his action?

Bob allowed just the right time for them to blow off steam and cool off before the woman supervisor took over.

Could Bob have passed the buck? How?

Could have blamed management for a bad idea.

13. [Discuss Step 4, CHECK RESULTS, Standard Procedure. Use cards.]

How soon? Why was it important for Bob to check immediately?

This change affected the whole plant.

How often? Bob kept in close touch with the situation. Why?

Bob must check closely until he is certain the change is accepted.

Did Bob check effect upon attitudes, relationships, and output? What did he look for?

Good attitude of fellow officers indicates acceptance of change.

Good relationship with members in her department proves her acceptance.

Did Bob accomplish his objective? How did he know. He used Step 4.

14. What foundation points were used in this problem?

[Bring out Foundations 3 and 4:

"Tell people in advance about changes that will affect them."

"Make best use of each member's ability."]

30 min. to here

[Clear the board except question and steps.]

Allow 5 min.

DISCUSS EFFECT OF CHANGE.

Let's take a look at the importance of preparing for the introduction of changes which affect individuals and groups.

Making that change in Bob's department was something new. Members had personal feelings about how this change would affect them.

People generally get used to doing things in a particular place or in a certain way. We are all inclined to question whether it is necessary to change the things we have become accustomed to.

Do workers resist changes which affect their work place or tools or the people they will be working with or next to?

This, then, is a place where one of our foundations for good Union Job Relations comes in - tell members in advance about changes that will affect them.

Preparing the way for a change is surely an equally good thing to do when changes in payment plans, hours, location of the department, new machinery, new products or material are about to be introduced. The same applies to all changes in union policy or rules.

The first boy put into a group of oldtimers or a woman on machines that have always been run by men are typical of problems stewards can do something about in advance.

Preparation of this sort prevents problems from arising later, saves time, and improves relationships.

35 min. to here

But even though the way has been prepared for the change, it it still wise to check the results to find out how the individual or the members of the union accommodate themselves to the change.

Allow
1 hr.
25 min.

STEWARDS' PROBLEMS.

Handle 3 problems.
2 problems - 30 minutes each.
1 problem - 25 minutes.
Standard procedure.

2 hrs.
to here

Clear the board.

BLACKBOARD GUIDE - WOMAN SUPERVISOR - PROBLEM NO. 4

Just what is this local union president trying to accomplish?

To get woman supervisor accepted.

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Facts

No women supervisors before
Rule - seniority - ability
Same authority and opportunity
One job open
No qualified men
Woman selected
Anticipated trouble

Weigh and decide

Possible actions

Mass meeting
Notice on bulletin board
Say nothing

Action

Gave facts in advance to fellow-officers and natural leaders
Asked their help
Let them blow off steam
Asked cooperation of new supervisor

STANDARD PROCEDURE

1.	Ask steward to tell problem.	Head of table. Does this involve you and somebody whom you represent? Have you taken action? Tell up to final action.
2.	How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3.	Get objective.	Get from steward: Something to shoot at. May be changed. What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4.	Get facts.	Steward first, as he recalls them offhand. Review subheads with steward - USE CARDS. Get additional facts from group - USE CARDS.
5.	Weigh and decide.	Fit Facts - Look for gaps and contradictions with group. Possible Action: What facts used? - from steward. Check practices and policies with steward. Check objective first with group, then last with steward. Check probable effect on individual, group, union, production, with steward.
6.	Balance of problem.	Facts used (from steward).
7.	Check Step 3.	Subheads - with steward. Why? - How? - Timing?
8.	Check Step 4.	Subheads - steward. When? - How often? - What?
9.	Check objective.	Steward.
10.	Foundations (if applicable).	Steward.

(Thank steward and clear board except question and steps.)

Union Job Relations -- Session V

A STEWARD'S OTHER WORK RELATIONSHIPS

[Before session starts, place on board:]

Just what is this steward trying to accomplish?

1. Get the facts
2. Weigh and decide
3. Take action
4. Check results

Allow 50 min.

STEWARDS' PROBLEMS..

1. [Make appropriate opening comments.]

50 min. to here

2. [Handle two problems - 25 minutes each.]

Allow 25 min.

1. [25 minutes is allowed here if necessary for the handling of the tenth steward's problem, or an additional problem from the group. If this time is not needed, go right on with session.]

[THANK GROUP FOR INTEREST AND PARTICIPATION.]

50 min. or 1 hr. 15 min. to here

[Clear the board.]

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Allow 10 min. REVIEW OF JOB RELATIONS CARD.

1. Are there any questions about the 4-step method for handling a steward's problem?

2. [Review foundations for good relations briefly.]

   All people like to be treated in accord with foundations of good relations. We all can do something about these things. Putting these foundations to work on the job, day by day, will prevent many problems from developing.

   [Refer to problem sheet.]

3. However, when problems do come up, we have a 4-step method to help us handle these problems.

   This method will help you get better results, only if you USE it!

4. [Review 4-step method including subheads, briefly.]

5. [Review tips for getting personal opinions and feelings. Try to get as many as possible from group.]

[Put on board:]

How to get opinions and feelings

Don't argue.
Encourage individual to talk about what is important to him.
Don't interrupt.
Don't jump at conclusions.
Don't do all the talking yourself.
Listen.

6. Considering the importance of people in the situation and knowing what is important to the individual person is not a matter of right or wrong or just or unjust. It is simply a common-sense approach to good stewardship.

This is one of the hardest parts of the steward's job - it may be thought to take too much time, but day-by-day use of this skill of dealing with people will save time in the long run.

The steward who knows his people well enough to build them into a smooth operating group is making his important contribution to war production.

1 hr. or 1 hr. 25 min. to here

[Clear the board.]

Allow 10 min. CLINCH ACCEPTANCE OF THE METHOD by showing advantages to each steward.

1. What do you think you will gain from using this method?

How will it help you personally in your department?

[Without too much insistence, bring out through discussion and place on board such points as:]

More confidence in ability to handle people

Better standing with those you represent

Better standing with superiors

Fewer headaches

Less criticism

Organized plan to follow

[If necessary, use these questions.]

Will this help you to handle some problems yourself - instead of passing them on to a staff representative?

If you get the whole story before you make decisions, do you think it will improve relationships in your department?

1 hr. 10 min. or 1 hr. 35 min. to here

Will it help to have a regular method to follow? How?

[Clear the board.]

Allow 15 min.

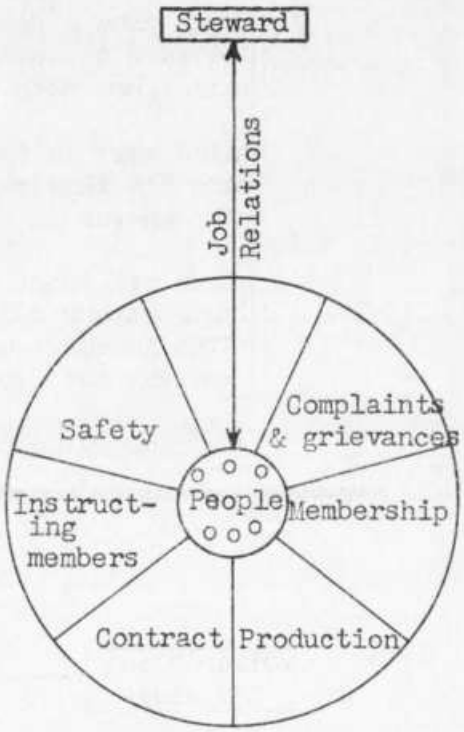
DISCUSS STEWARD'S OTHER RELATIONSHIPS.

[Show how he is linked to fellow stewards, to committeemen, to union officers, to plant management.]

1. [Quickly re-develop the "Steward's Responsibilities" chart from Session I.]

Let's go back to the chart we developed in the first session.

Develop on board the following stewardship chart:



So far we have been looking at the steward's relations with people whom he represents.

Is this the only kind of relationships you have?

What other people in the plant do you work with?

Ask these questions if necessary:

Who gives you your instructions?

Where do your reports go?

What other people do you call on for help?

Do you work with any management representatives? These management representatives work with these people too.

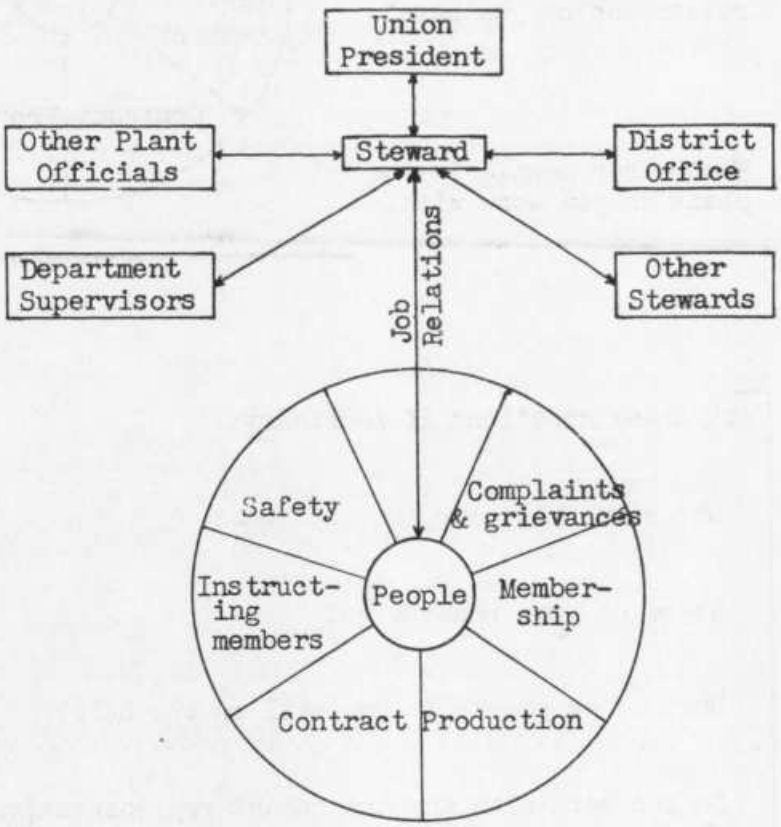
Add names, boxes, and Job Relations lines.

Each time a Job Relations line is placed on the board, be sure to touch on the fact that this relationship also goes both ways as indicated by the arrowheads.

Also ask "Is this relationship important to the steward?" and "Is this relationship important to the whole union?" The answer in both cases is "Yes."

Then ask "What can he use to assist him in maintaining this strong relationship?" The answer, of course, is "The foundations and 4-step method." This should be brought out from the group.

The completed chart will appear like this:



The steward is in touch with all these people and departments.

2. We have said that the steward gets results through people.

Everything you do as a steward depends on people.

How you get along with people is a measure of your standing.

Do the union officers think it's an asset for a steward to have the reputation of working well with people?

With all these people it will be a good idea to remember first of all that they are all people and must be treated as individuals.

And we must realize that there is a Job Relations line between the steward and all these other people on the chart - and if we are to keep good relations with them we must use these foundation points.

Before you take any action - before you go to another union officer or to a supervisor - you'll want to make certain you've got the facts.

And be sure you have the whole story.

That you "Weigh and decide" and not jump at conclusions.

That you "Take action" and not pass the buck.

And you'll always come to this final test when you "Check results" -

1 hr.
25 min.
or 1 hr.
50 min.
to here

Did you action strengthen Union Job Relations

[Leave chart on board.]

Allow 10 min. CREATE CONVICTION that each will use this skill.

1. Maybe sometimes you wonder whether what you do, does help the union and production.

2. [Ask each man how many people he represents directly.

Write the figures on the blackboard, beside the chart.

Total them - put the figure in center of chart ABOVE "People."]

That many people do influence war production.

And what you do, influences those people.

3. [Emphasize the strategic position of the steward.]

Everyday relationships count.

4.* We are all working on the same job - turning out war
* production for the men in the armed forces.

* We all have one customer - Uncle Sam.

1 hr. 35 min. or 2 hrs. to here * One objective - to win the war.

[END HERE NO MATTER HOW EARLY.]

[Clear the board as members of group are leaving.]

STANDARD PROCEDURE

1.	Ask steward to tell problem.	Head of table. Does this involve you and somebody whom you represent? Have you taken action? Tell up to final action.
2.	How problems come up.	Where appropriate, stress; you sensed, or anticipated a change.
3.	Get objective.	Get from steward: Something to shoot at. May be changed What do you want to have happen here? Does this problem affect the group? What net result do you want after you have taken action? Get group agreement.
4.	Get facts.	Steward first, as he recalls them offhand. Review subheads with steward - USE CARDS. Get additional facts from group - USE CARDS.
5.	Weigh and decide.	Fit Facts - Look for gaps and contradictions with group. Possible Action: What facts used? - from steward. Check practices and policies with steward. Check objective first with group, then last with steward. Check probable effect on individual, group, union, production, with steward.
6.	Balance of problem.	Facts used (from steward).
7.	Check Step 3.	Subheads - with steward. Why? - How? - Timing?
8.	Check Step 4.	Subheads - steward. When? - How often? - What?
9.	Check objective.	Steward.
10.	Foundations (if applicable).	Steward.

(Thank steward and clear board except question and steps.)

NOTES

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Union Job Relations Reference 1

UNION JOB RELATIONS IN THE FIELD

The following policies and procedures, which are concerned chiefly with quality control of Union Job Relations, are stated for the Union Job Relations Trainer's guidance and information.

1. Union Job Relations is to be put on exactly as outlined in the manual.

2. During the first 10-hour program put on by any Union Job Relations Trainer he will be visited by an Institute Conductor or a Quality Control man for at least one session and preferably two.

3. Each Union Job Relations Trainer may be visited in sessions regularly thereafter once a month.

4. No Union Job Relations Trainer shall remain on the active list unless he puts on at least one 10-hour program in 90 days.

5. All Union Job Relations Trainers are expected to attend coaching sessions at the request of the TWI District Office.

6. Union Job Relations sessions shall be limited to groups of 10 stewards.

7. In order to be certified, participants must attend all five sessions in their logical sequence, participate satisfactorily, and present a problem.

8. For certification purposes, we will count the steward who brings an unsolved problem and, as it is being handled, decides he does not have all the facts, thereby shutting off further handling of the problem, because there is evidence that this person does understand the basic step of Job Relations. It is, of course, best to have him present the rest of the facts at a later session.

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TIPS FOR TRAINERS

Opening the Sessions

Have conference room ready and be there ahead of scheduled time - if you start on time, the group will make an extra effort to be prompt.

Urge some top union officer to introduce you to each group. His appearance and endorsement of the program is important.

The 10-hour sessions of Union Job Relations are held so that stewards will learn and practice the four steps and the application of the foundations. These sessions are not for the purpose of entertainment or morale building. Beware of "interesting" sessions.

Start at once and continue to emphasize that what we are doing is getting practice in the use of the method. In this practice we arrive at possible actions but they are not to be construed as decisions. We, in analyzing and applying the procedure, are not as close to the problem as the steward who actually must make the decision. We can definitely obtain experience in the use of the method by applying the method to another's problem. But, generally, any possible actions arrived at are not as reliable as those that are obtained through the use of the method by the steward who must actually make the decisions.

Avoid a classroom atmosphere and above all do not be an expert. You are not running a one-man personnel relations bureau.

Don't take too much time to give your own experience and background. Your purpose is to set a pattern for the members to use in introducing themselves.

Stress on Method

Remember to follow and use the card. See that the members of the group follow and use the card in all discussions.

Constantly check yourself to see that you are not laying too much stress on something which particularly appeals to you at the expense of other points.

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Show your enthusiasm for this program. Enthusiasm is contagious. After several groups, Union Job Relations may become an old story to you. Remember you are setting the standard for the group. The program can be no better than the trainer. Continue to be thorough at all times. A sloppy job by a trainer usually does more harm than good.

Bring out to the group the reasons for throwing the problems against the plan - to give them practice in using it. We are trying to acquire a skill. Your job during the ten hours is to sell the plan to all ten stewards and give them basic training in its use.

Don't just read from the manual - talk informally with feeling and expression. Make it live! Don't lecture or preach.

Working with the Group

Don't direct your remarks and questions to a favored few - get all members to participate.

Practice good relations with your groups. Don't argue - winning an argument may not convince the other fellow.

Don't try to imitate the personality of your Institute Conductor. Put your own personality into your performance, but stick to the ideas and thoughts outlined in the manual.

Don't put yourself on a pedestal above the group. Be one of them. You will earn their respect if you do a good job putting on the sessions as outlined in the manual.

Be alert when a member gives you an answer even when you are doing omething else. Remember it and come back to him. Be constantly on the watch for contributions from individuals in the group. Allow them to express their views and don't try to rearrange or distort their contributions to suit some thought or idea you have in mind.

Be constantly on the lookout for background material contributed by the group with reference to the foundations. If necessary, ask members if they know of any instances where the foundations, if applied, would have prevented a problem from arising.

In an office group, particularly, stewards should be told that they do not need to take notes and they should be specifically directed not to take notes on other stewards' problems.

Handling Stewards' Problems

Reference 3, "Standard Procedure for Handling a Steward's Problem," is the final authority. (For the convenience of the trainer, a condensed form appears at the end of each session.) The steps in the procedure are to be followed exactly. They are designed to give the individual steward more practice. Be sure to get recognition of how the problem came up and the importance of preventive action. It is important to establish a real objective - see that the steward does not look just at the handling of the problem, but at the overall effect or results he wishes.

Avoid constant use of the same objectives repeatedly in all stewards' problems. Vary them and make appropriate to the problem. Help the steward reason out his objective but don't dominate his thinking.

Make "Fact" statements short and to the point.

Remember that all check-points in Step 2 are to be used. The objective, because it is used first, is no more important than the rest of the points.

When someone suggests a broad possible action like "get him interested" ask a "how" question in order to bring the possible action down to something more specific. Otherwise possible actions are ambiguous when we test against the objective.

If a steward claims he doesn't make decisions, point out that a recommendation is a decision. If a steward has a record of making good recommendations, then any that he makes are apt to be considered seriously by his superiors.

Don't let the group give you just any possible action. We want real thinking here. Use "What would you do based on these facts if this problem were dumped into your lap?"

Be sure the members of the group understand that they are not being led to a decision. Decisions cannot be made in a conference room. We are never sure we have all the facts and we do not know the individuals concerned.

Again, the fact that nothing is done is often a decision. When a problem arises the steward sometimes decides not to take any action or that he should report the matter to his superiors. The fact that he decided to do nothing himself may be an important decision.

When a member of the group asks you a question pertinent to the steward's problem, refer it to the steward instead of trying to answer it yourself.

Don't indicate by your words or actions which possible action you think should be used. A trainer's function is to guide the thinking of the steward and the group through our various steps. We are not making a decision for the steward, but drilling on a method which each steward can use to arrive at his own decision on what action he should take. The steward should know the probable effect of any action on his objective, the individual, the group, the union, and production, better than the trainer or any other member of the group.

Neither you nor the group is "solving" the steward's problem. We are developing our skill in using the foundations and the 4-step method. This is the tool that the steward can use to solve his own problems.

Don't expert (express personal opinions) by saying, "I think." Questions tempting you to expert should be redirected to the members of the group. A good trainer gets the group to do most of the thinking according to the pattern set by the manual. Job Relations is designed to get stewards to think and reason according to a pattern as a basis for sound actions or as an aid to sound action.

Blackboard Work

Don't obstruct the view of the blackboard when discussing blackboard work.

Keep these three things in mind when at the board:

1. Write legibly.
2. Stand at the side of your work as much as possible.
3. Talk while writing.

Do not change steward's own words unless necessary to avoid highbrow phrasing. However, facts should be briefed on the board. Try whenever possible to get the sense and the meaning of the facts in from three to five words. Then check to make sure of meaning, but avoid highbrow phrasing. If someone gives AS A FACT "emotional instability" or "social maladjustment" make it specific. The facts - not their interpretation - are to be put on the board. Ask the steward to tell you what instances make him say that, and put on the board some specific thing like "had hysterics in office."

Make all blackboard work neat and readable. Talk or ask questions while at the blackboard in order to hold the group's attention.

Describing Practice

In the last fifteen minutes of Session I spend some time enlarging on the procedure that will be followed in handling problems; explain that each steward will come to the head of the table and simply state the facts of the case. The trainer will place them on the board and the group will get experience in using the 4-step method. Emphasize that no comments or criticism will be made. It is important that the stewards realize that they will not be criticized.

Emphasize at the end of Sessions II, III, and IV that to receive a certificate each steward must present a problem. Now that they know what the problems actually are, the regulations about certification mean something.

If people present problems which do not involve the direct relationship with someone represented, the objective is apt to turn out to be of the "either or" or "whether or not" variety. The method applies in horizontal relationships, but for group practice we want to have a real objective to shoot at and therefore we want direct relationships.

If stewards say they have no problems and if they really are stewards, ask them whether they have been doing some preventive work to keep problems from arising. This is particularly useful during Session IV when the Trainer's problem has illustrated how a steward used both the foundations and the 4-step method to keep department conditions smooth and prevent problems from arising.

The Manual

A typographical code has been used to show whether material is:

to be quoted
to be presented in trainer's own words
to be put on the board
a direction to the Trainer

This code immediately precedes Session I (p. 12).

Follow the suggested timing for each section. Experience has shown that the time indicated is needed to get the point over. If a particular section takes longer or shorter time than is indicated in the manual, then the timing gives you some idea as to how much you are ahead or behind. Start each session on time and close on time.

After each session you conduct, go over the manual and the problem handling to check yourself on omissions or failures to get a particular point over to the group. Keep studying your manual including the references. The Institute only gave you a start. Familiarity with the content of the manual will improve your confidence and effectiveness as a trainer. If you are not sure of your interpretation of any section of the manual, check with the Job Relations men in the TWI District Office.

Be very careful that any remarks you make supplementing the manual pertain to a particular paragraph in the manual. In other words, thoroughly analyze each paragraph or sentence, being sure you know what the meaning is. It is a common fault for trainers, in trying to supplement the manual, to be sidetracked and then have difficulty in getting back on the beam.

"Following the manual" does not mean sitting down and reading it. Learn it - then check yourself constantly. When there is board work to do, push your chair under the table and stay on your feet. Lean on the back of your chair to look at the manual but do not go back to your seat during the chart work in Sessions I and V or during the blackboard work on a problem.

Follow your manual. Omissions, over-emphasis, or foreign material may lead you into trouble. Do not mark up the manual. Follow it exactly.

Union Job Relations Reference 3

STANDARD PROCEDURE FOR HANDLING
A STEWARD'S PROBLEM

1. Ask steward to come to head of table and stay there until the problem handling is completed.

   Ask steward - "Does this problem involve you and somebody you represent?"

   (Under no circumstances permit steward to use hypothetical problem or one in which he was not involved as a steward.)

   Say - "Have you taken action on your problem?"

   If the answer is "Yes," have him tell his problem up to but not including final action.

   To keep him from telling what final action was, make a simple statement as to the reason for stopping. The purpose is to get better group participation - yet to give the steward the full benefit of his practice problem. Inform the steward that he is to tell the group about the incident or situation that made him realize he had a problem on which he had to take action, plus any fact-getting steps he then went through, but to stop before he gives any interpretation of the facts or mentions any decisions or actions.

   Under no circumstances, interrupt the man, even to keep him from telling the final action. If he generalizes, let him alone (unless the problem is very long) but when he finishes make some such remark as "you say this is always happening - let's take just one instance." In problems involving large numbers of people try to reduce the problem to what involves only one person.

2. After he tells his problem, ask the steward in which one of the four ways this problem came to his attention (or comment on it, yourself).

   a. You sensed a change in your department.

      (EXAMPLE: Found changed relation or break in usual set-up.)

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b. You anticipate a change in your department.

(EXAMPLE: You know a change is coming and want to prepare for it.)

c. This one came to you.

(EXAMPLE: An individual made a request or protested.)

d. You ran into this one.

(EXAMPLE: It just happened.)

The examples stated under a, b, c, d above are to be used only as necessary. Should the steward question what is meant, the purpose of bringing out how problems arise is to make stewards more aware of the preventive work that may be done particularly as regards a and b.

STRESS a and b at every opportunity, pointing out that they are in the preventive areas. To vary this procedure after handling several stewards' problems, you might ask any one of the group for the four ways that problems arise.

3. Ask steward: "Just what are you trying to accomplish?"

(Do not erase this question when clearing the board at the conclusion of the first problem. It will speed up your work if you do not have to rewrite it.)

The objective is something to shoot at. It may be difficult to determine. It may have to be changed in the course of handling the problem.

Help the steward to state his objective - but do not force him to accept someone else's statement. Question the objective if it seems short-sighted or mistaken.

Use of the following questions will be helpful:

What makes this a problem?
What do you want to have happen here?
What effect is this having on production? On the union?
Are any other people in the department concerned?
What results do you want to get out of this?

If the steward gives as his objective one that appears to be inadequate, such as "to get the old hand off his neck," help him to get a long-range view by asking "why" in order to get him to see that the accomplishment he wants in the end is "to eliminate trouble in the group."

Get agreement from group that steward has chosen exactly what he is trying to accomplish. The following questions may be helpful:

Do you see exactly what he is aiming at?

Do you "get" the objective?

Would you have the same one?

What would you have in mind?

Do not write the objective given by the group on the board unless the steward is in agreement. The purpose of asking the other stewards to participate is to get their thinking and give the steward telling the problem the benefit of their thoughts.

4. Ask steward for important facts and list them on the board as given by him. Do not number the facts. (Your board work should be brief but accurate. Write his statements in three or four words.)

Do not let this board work DRAG. Help the steward recall facts he has already mentioned. Putting down the facts is not a memory exercise. Suggest them. However, he is the referee - do not change or interpret his facts.

USE THE CARD FROM HERE ON OUT

Say - Let us look at our cards.

Make sure that everybody in the group is looking at his card before proceeding. Direct the questions at steward.

Ask - Have we reviewed the record and do we have those facts on the board? Do not let this go on a "yes" or "no" answer.

Go through each subhead in the same manner. Find out what facts were obtained by talking with the individual to get opinions and feelings. Show them on the board. Apply the "Tips for getting opinions and feelings" if appropriate. Ask why the worker did what he did.

This procedure may help get additional important facts and may preclude "talk with him" as a possible action in Step 2. Put additional facts, supplied in answer to group's questions, on board. Do not separate them from the previously listed facts by a dotted line or space.

Ask the steward: Are these all the facts needed for a decision?

If the steward who is presenting the problem says he does not have all the facts and if he has not yet taken action, the steps that will be taken to get more facts may be discussed. They will not be put on the board and there will be no discussion of possible actions or any other part of Step 2.

If the steward who is presenting the problem says he has already taken action, and during the discussion says that he did not have all the facts, handling of the problem continues.

Ask the steward: Do you want the group to pitch in now?

Ask group: Do you want to ask the steward any questions about this problem?

Ask group: If you were in the position of this steward, would you want any additional facts?

If facts that seem trivial are suggested, you may want to ask the steward -

Is that fact important in helping us to come to a decision in this problem?

By doing this, many times the steward will wash out irrelevant facts. At this time you can as part of the group ask questions about the problem but do not do this if group is working readily on these points.

All of the following information will probably not be needed in any one problem but the Trainer may need to ask the following "smoke-out questions" in the vein of - do you need to know --, would it make any difference if --?

Employee's job - just what he does

Time on present job and length of service with company

Work and training background before coming with company

Present working environment

Work record: production, quality, housekeeping, absence, etc.

What (if any) recent changes have been made in the working conditions of the department which may affect the problem?

What is the working relationship between employee and foreman, from the employee's point of view?

Job rating of employee - how is he getting along?

Wage rate of employee - any recent change?

What (if any) union and company policies are involved?

Personal data concerning the employee

(a) Age
(b) Marital status and home life
(c) Outside activities: hobbies, social life, etc.

Personality, temperament, attitude of employee

What persons other than employees are involved?

What intermediate action (if any) has been taken in the problem? (This does not refer to a final solution.)

If a member of a group says, "But suppose it had been this way" - remind them that we deal only with facts. The Trainer must be particularly careful not to say "Let's assume" or "Suppose it had been."

Then ask - Are we reasonably sure we have the whole story?

If any member of the group says that he does not think there are enough facts, it is appropriate to ask him what part of the card brings him to that conclusion. The Trainer may summarize by saying, "Then, if you were in the steward's shoes, you would feel you did not have the whole story and you would not be ready to decide on your action until you had more facts." This applies whether the steward presenting the problem has taken action or not.

5. Say - Let's take a look at the second step, Weigh and Decide. Write on board - WEIGH AND DECIDE. Here is where we think about these facts.

Quote the card -

The card says fit the facts together.

In fitting the facts together, let us see first if there are any contradictions; second, if there are any gaps that call for additional facts. Discuss these points.

Consider their bearing on each other. Do not make this either a statement or a "yes" or "no" question. This is part of the method.

Do the facts indicate some possible actions?

After this, again quote the card -

What possible actions are there? Write on board, under Weigh and Decide - possible actions.

Explain that you are asking the group to suggest "possible actions" in order to:

get practice in weighing and deciding
show that there usually are several "possible actions"

You are not trying to make the decision for the steward, or criticize what he has already done.

Select one member of the group and ask: What would you do if you had this problem?

Ask him what facts he used. Do not let them be referred to as the "first and third" - name them. These are the facts which bear on each other and which produced the "possible action."

Ask the steward whether the action is possible within his union's policies and practices. If he says yes, write the "possible action" on the board.

Repeat with two more stewards in the group.

A steward who points out in the discussion of Step 1 that he believes all the facts have not been obtained should not be asked for a possible action.

If anyone gives as a possible action such suggestions as "get the facts" or "find out why" it is handled by saying, "You mean you would want to get more facts before you decided on what you would do to handle this problem. Any steward must feel personally sure that he has the facts before he considers action - that is the meat of this Job Relations program. But at this point we will let the stewards who feel there are enough facts, suggest the actions they would consider." When such a possible action as "Talk with the worker" is suggested, clarify the meaning. If it is "to find out," then it is not a possible action. If it is "to persuade him," re-phrase it before writing on the board. Get agreement to write it as "reason," "convince," or "persuade" and ask how he would do it to make it specific.

If additional facts are brought out at any time, write them on the board. After there are three or four "possible actions" on the board, check the first one by:

Asking the group whether this will accomplish the objective of -

Asking the steward about the objective, briefly - yes or no

Asking the steward about the probable effect on:

the individual
the group
the union
production

Do not cross off possible actions even if the discussion proves them unwise. Crossing off may indicate to some the making of a decision by vote.

Remind the group that skill in weighing and deciding can be learned through practice. You become familiar with areas to explore, and what to be on the lookout for (but don't jump at conclusions).

If, in the discussion, there is some such statement made as "All these people coming from farms (or from stores, or all women, or any other generalization) are no good," or "All the fellows about to be called in the draft are hard to handle," the Trainer must not let it stand. Point out that individuals are different, and that you can make a bad decision if you jump at conclusions about what they are like.

6. Have the steward state balance of his problem if action has been taken. Write it on the board. Make no comment on the action taken. Ask steward what facts he used in selecting this action. If action has not been taken, proceed to Steps 3 and 4. Your lead-in can be, "When you take action on this problem, are you going to handle this yourself, etc. --."

7. Check subheads under Step 3 with steward. Ask - "Why" and "How" after subheads, when pertinent. Get brief group discussion on timing - the interval between reaching a decision and taking action. Ask group in every problem - "Let us look at our cards."

   Now stewards are often concerned about being "by-passed." Remind them that they are by-passed when they fail to size up situations effectively in order to take the right action - the action that solves a problem.

   Some stewards feel they have no responsibility in connection with people whom they represent because the union headquarters takes care of dues and a special committee handles grievances. But in all problems, the man closest to the individual member does have a relationship with that person - he must make it good in order to get the most out of production. It will strengthen his leadership when he does. With new stewards, particularly, there will be many requests for help on "What do I do when he says he won't do what I ask him to, or else shows that he doesn't want to?" Handle this in terms of the particular person involved. There aren't any general rules, and the steward has to stop looking for them. This is a real situation, and the only help anyone else can give him is to tell him to look at the whole situation - the persons involved, including himself, the effect on the other people - try it and see how it works.

   If a steward asks: "What do you think of what I did?" it will be helpful to say, "Well, let's take a look at what you were trying to accomplish. What were the results?"

   Do not lose any chances to emphasize to stewards in your group that it is a definite part of the steward's job to realize just exactly how far his own responsibility and ability extend in the handling of job relations problems.

   Remind stewards to always ask themselves: "Is this something I should handle myself? Do I need help? Is this something I must pass on?"

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Some cases will be brought in which involve people heading toward being fired. And sometimes that is the answer. Look at the effect on other people.

Is the effectiveness of the person more than the trouble he causes? In these days, we must keep everyone we can, if he is useful, but there are still some people who have to be fired.

8. Check subheads under Step 4 with steward. Use "when," "how often," and "what" after subheads when pertinent.

   Ask how the steward can check results, and what he will look for.

9. Have the steward check whether or not objectives were accomplished or whether they may be accomplished if problem has not reached final action. Let him tell "why."

10. Say - "Let's look at the other side of our card." (Make sure that they are looking at the cards.) Use the foundations in preventive sense. Ask steward - "Do any of our foundations for good relations apply in this problem?" "Could the use of any foundations have prevented this problem?" Consider: "People must be treated as individuals."

    If you are convinced that nothing on the foundation side applies, omit this step.

    Thank steward for contributing problem. (Do not comment or pass judgment on actions or results.)

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Union Job Relations Reference 4

A WAY OF LOOKING AT THE STEWARD'S JOB

In working with stewards it is important to remember that their chief importance is as representatives. Just as the supervisor represents management, the steward represents and acts for union members.

For the most part the line and staff organizations of management and of labor are parallel, and many of the personnel problems encountered by management representatives are also faced by union officers at corresponding levels.

A production department seldom runs along smoothly without interruption. About the time a group is working together smoothly changes usually occur. Whether these changes are in the form of expanding schedules, improvements in methods, shifts in organization, or new employees, they always create problems.

Stewards need to know not only the contract and the procedures of their union, but the individual members as well. Expert knowledge of union regulations is not sufficient to make a good steward. The steward needs to give attention to the particular characteristics of each individual for no two of them have exactly the same experience, abilities, and desires.

The steward will not always find it possible to apply these particular practices to his own situation, since they were used in different situations. But if he will look for the general ideas which the other fellows' practices illustrate, he will find that they can be applied to his problems too. These ideas have been derived from the experience of men in the shop.

It must be remembered that to the worker a job means more than just a pay check every week or doing mechanical operations over and over between in-and-out whistles. It means that he is part of an organization, wherein he has a particular place. It means that he is a human being who wonders what kind of people his fellow-workers are, what they are going to expect of him, how he should approach his steward, etc. Representing a union member includes helping the worker to adjust himself to his surroundings, giving him an idea of the union of which he is part, and the particular place he is to fill in it.

This is the point of view from which we approach these five sessions.

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The steward facing hour by hour the difficulties of enforcing a contract may easily overlook the difficulties of his workers. It is natural for him to think most of results and to spend little time on people. Yet there are conditions in each department which prevent the development of wholesome attitudes toward associates and the union.

New stewards can look back and remember a few things - what difficulties did you run into? Try to look at the department situation through the operator's eyes.

Look at the men - their minds, muscles, feelings, and attitudes. Observe them and talk with them. Notice what they do. Attempt to analyze their actions. Listen to their comments and encourage them to talk because the more clearly you know each operator as a person, the better you can represent him.

Hindrances to Understanding Men

Understanding people is not a simple process. The steward who says, "I can size up a man as soon as I meet him," is usually fooling himself. It will be helpful to notice some of the habits which actually hinder us in understanding them.

The "Die-Casting" Habit - Too often, as we observe individuals, we try to sort them into types or, to put it another way, to force them into imaginary molds which we have set up in our minds, much as the die-caster squirts metal into different kinds of molds. They may be different shapes before they go in, but they're all alike when they come out!

We feel that we have completely cataloged Bill Jones when we say that he is a "good mixer," that we have defined Tom Smith when we put him down as a "tough customer." But we can't do that with people, if we really wish to understand them. We must study each one from all sides, not pour them into molds or cast them into types.

The "Just Like" Habit - "He reminds me for all the world of Bill Brown," we say, and thereafter we notice most easily the traits which are like Bill Brown and ignore those which are different. Once we have made up our minds he is "like Bill Brown," we close our minds to the possibility of his having other characteristics which we may need to know. We stop studying him, with the result that we never discover many of the interests and abilities which are part of him.

The "Go, No-Go" Habit - "I can tell whether a man will make a good union member as soon as I ask him to do one thing for the union," said a

steward. "If he listens carefully to what we want and does it exactly as I tell him, he will make a good man. If he tries to 'dope out' his own way of doing it, he seldom makes a good member." This steward, if he really does follow the way of thinking which he described, is classifying all employees into two classes: (1) those who follow directions to the letter, and (2) those who try to figure out methods of their own. His gage of men is two-valued, "go" or "no-go." There are no "in-betweens." He is applying an inspection technique, not an understanding one.

People are seldom "either-or." Studies of individuals show that approximately two-thirds of them have each of the commonly observed traits to a moderate degree, that is, they are close to the average in it, and that only a small percentage have markedly large or small degrees of any trait. Not "either-or" but "the degree to which" should be the guiding concept in studying people.

Similarly it is easy to fall into the habit of judging people solely by how much interest they take in the particular phase of union work in which the steward is most interested, overlooking their participation or lack of participation in other important union activities. People's reactions cannot be measured fairly with any single gage. They are too complex.

The "Formula" Habit - Closely related to these "stereotype" ways of looking at people is the practice of dealing with each "type of person" in a certain set manner. It has been said that the way to "handle the old timer" is to "let him alone," that the best way to get along with the "chronic kicker" is to "lay down the law."

Of course, these methods work a good deal of the time with many of the people with whom stewards have to deal. Otherwise they would not be so commonly accepted. But they become a hindrance when they are used as excuses for lumping people together in groups or types and avoiding the responsibility of trying to understand each person as an individual.

In short, people cannot be handled like piece parts or apparatus. Each is an individual, different from every other. "Stereotyping" them, classifying them, standardizing them, or reducing them to formulas - habits of thinking that work well with inanimate things - often prove to be actual hindrances in handling people.

The "Standardization" Habit - Stewards may become so accustomed to thinking in terms of standards that they look only for common responses of "the member" and pay little attention to the special interests, abilities, and peculiarities, of individual persons. Yet it is these special characteristics that yield fruitful contacts upon which to base effective stewardship. It is the ways in which a person is different, and especially the ways in which he is superior to the "mine run" of people, which furnish the

key to his special interests, for he tends to develop strong interests in the fields in which he possesses ability. The steward has the problem of taking each of these unique and different personalities, finding out what he is like and to what he will respond, and fitting him into activities in which he will be most effective in the union.

How to Understand the Individual Member

How can the steward understand a person who comes into his department well enough to fit him into the union? He can talk with him, question him, observe him, throw out conversational leads to draw him out, listen to him, and think and listen and think, seeking ever to look behind appearances and first impressions into the background of feelings, sentiments, and other reactions - to the experiences which make up the man himself.

Keeping in mind that it is not a question of "either-or" but rather of "the degree to which," the steward can use the following questions in his study of each individual. In using each question, however, the steward must think constantly, "To what extent does he do this? In what degree is this true or not true of him? How far is this aspect important in this individual? Why does he react the way he does?" Here are the questions:

1. Is he "doing a good job"?
2. Does he fail to understand instructions?
3. Does his attention wander from the job?
4. Is he interested in his job?
5. How does he respond to recognition?
6. Does he stand on his own feet?
7. Does he seem ill-adapted to the job?
8. Does he get along well with the other people in the department?

Each of these questions may now be considered a little further.

1. Is he doing a good job? - Does he miss a part of the instructions when he is given a start on the new job? Most likely he does. Is he therefore stupid or careless? Not at all. He is merely human. The human mind has a perfect mechanism for avoiding overload. It simply ignores. If parts of the situation are wholly unrelated to the individual's past experience or to his present interest, he "pays no attention to them." If the total

situation demanding his attention - for example, the new job is complicated, his eyes and ears first grasp only those aspects which interest him most. If his experience with these is satisfying, he soon explores further and is ready for more instruction. The steward can call to the attention of the supervisor or instructor the points of the job he seized upon at the beginning, as cues to his interests, then the rest of the instruction can be related to these interests. Points of the job that the worker missed can be brought to his attention as soon as he is ready for them. Are you sure that he knows just what is expected of him? Has the job been over-sold and is he let down?

2. Does he fail to understand instructions? - Does he misinterpret them? Does he fail to catch the point of the explanation? Does he seem "a bit thick?" The easy way out is to label such a person "dumb" and thus avoid all responsibility for helping him to become an efficient operator. This, however, neither saves the man nor gets the work done, and what is more it is usually unnecessary. Most workers who have passed the employment office are high enough in mental capacity to learn readily the jobs to which they have been assigned. When they fail to understand, it is not from "dumbness" but from narrowness of experience. They are like the city boy who, on his first visit to a farm, tried to get a pail of water by calmly holding up the pump handle, waiting for the water to come. Why shouldn't he? He had seen hydrants with pull-up handles but he had never seen a pump in a well.

The worker who learns slowly because of narrow experience can usually be trained by patient, well-planned instruction and often makes a superior operator. Cues to his background and his interests may be gained by encouraging him to talk about the job, listening to him without interruptions, and giving attention as much to what he takes for granted as to what he actually says. Gaps in his background can be filled when he has actual experience in the shop.

The worker who misinterprets instructions and thus makes mistakes is a similar problem. On account of the narrowness of his experience he fails to understand. Where others might have got meaning he draws a blank because he doesn't know the "code." Yet he fears to reveal his ignorance. What does he do? He bridges the gap by using his imagination and, whenever he guesses wrong, he makes mistakes. The remedy is to make connection with his meager experience by finding out as much about it as possible and to get him in the frame of mind where he is willing to ask questions. If the steward is instructing him in how to do some work for the union, it will help to have him repeat instructions in his own words: "Now just to be sure I've made it clear, tell me what it is you're going to do."

Care in explaining shop terms will help greatly. One worker tells of his first day in the shop thus: "The boss gave me a big pan of little

gadgets and said, 'Take these piece parts over to that bench and "mike" 'em. The "max." and "min." are six and ten.' Then off he went and I spent the next three hours trying to figure out what mike, min., and max had to do with the job, and what I was supposed to do with the pan of gadgets."

Ignorance of shop terms and shop customs is by no means confined to "new" employees fresh from the employment office. Picture an experienced employee newly transferred from a distant department, trying to adjust himself to a new location and learn a wholly new kind of job. During his years on the old job he has gone along paying little attention to other organizations, yet now on the new job he is ashamed to reveal his ignorance. He is grateful to the steward who will take the trouble to discover the limits of his experience and give him the help he needs.

3. Does his attention wander from the job? - Does he seem to be oversensitive to noises, changes in light and ventilation, presence of other workers or passers-by? If so, he is merely responding naturally - acting "like a human being." Most individuals find it hard not to pay attention to all that is going on around them, especially to noises and people.

The new worker, in addition to mastering his skill, has to become accustomed to a "total situation" which is strange and fascinating. In fact, a part of any skill is an ability to ignore everything except the activity itself - to concentrate one's attention on it. Witness the ability of the champion athlete to forget his gallery and lose himself in the game.

Complete absorption in a task and disregard of surroundings amid the distracting noise and activity of a manufacturing plant is not a natural act. It is an achievement - that is, it can be learned. Fortunately, most workers are able to learn it for themselves in a relatively short time. Sometimes it is possible to help the worker who is unusually sensitive to distraction by arranging to get him placed in a less exposed location where noises are more uniform or monotonous or tc transfer him to work which requires a broader spread of attention or which includes dealing with a large number of people.

4. Is he interested in his job? - Does he fail to put forth the effort necessary to learn to do the job well? A boy will have an interest in a job if he feels that it is in harmony with his own purposes, that it is "getting him somewhere." If he can identify the job with himself, see its connection with his own life, with his cherished ambition, then he is "interested in the job" in the same sense that a man who buys an interest in a business is "interested in" that business. When this happens there is no trouble about effort.

But often the new member cannot see any relation between his own plan for the future and the job to which he is assigned. The steward can explain

to the worker how upgrading takes place and what avenues of advancement are open to him if he is efficient in each job along the line. Some young workers are victims of the "white-collar" craze; their only idea of advancement is to get out of the shop and into the office, without any clear understanding of the possibilities of either. A steward can often render a real service to such young people by giving them facts regarding the values of shop experience, no matter where later promotions or transfers may lead, and helping them to think over their plans and ambitions in the light of these facts rather than on the basis of family or personal prejudice regarding "overalls" or the "white collar."

Occasionally the steward finds an individual who has "hitched his wagon to a star" far beyond the limits of his capacity, background, and education. He may have to help such a person to get his feet on the ground. On the other hand, some learners in the shop seem to have no definite ambition or plan of action for their lives at all. By talking with them and becoming better acquainted the steward may be able to discover such an ambition and help the worker to connect his job with it.

Under war conditions it is a powerful stimulus to show each man what he and the union do for the war effort.

Many stewards make it a point to tell the members how their production will be used: "This goes into an airplane to show the pilot so and so --." "This goes into an instrument panel to show so and so --." "Our union fabricates parts for --- planes a month."

In a highly specialized factory it is difficult to provide the interest which the old craftsman felt in the product of his hands because it was all his own, from raw material to finished masterpiece. The modern shop, where the worker can see the whole product fabricated before his eyes, provides an opportunity to revive this kind of interest. The worker can "see what he is doing" and see that it is worthwhile.

Likewise a worker has more interest in his machine if he understands how it works, the principles of its operation, what it can do, and just as important, what it cannot do; i.e., the limits of its operation. When the worker knows those things, instead of blindly following the directions of the machine-setter or the equipment man, he takes an interest in the machine. Because he feels that he understands it, he comes to identify it with himself, just as he does the job in which he "has an interest." It becomes his machine, and thus a new interest in the job is born.

Knowledge of his own progress stimulates the learner's interest. The value of operators' performance records as an incentive, especially when presented in graphic form, was discovered long ago. We like to beat our own record, to see ourselves grow in skill, and most of us like to engage in

rivalry with others. Rivalry in output, however, is a form of stimulation which has to be handled wisely, especially during the training period. Progress in learning does not always register in daily output. While learning correctness of "form" and developing the ability to reach quality standards, output may not show a daily increase and the worker should not judge his progress by it. The steward can prevent discouragement and loss of interest by directing his attention to this fact.

Then there is the matter of social approval. Any experienced steward knows the value of recognition as a stimulation of interest in the job. Praise is discussed further in a different connection below.

The effectiveness of all these ways of reaching the worker's interest and relating them to the job lies in the fact that a man reacts as a whole. We sometimes talk of training his muscles or his brain or his hands. We can't. His whole self is being trained by every experience he has. We teach the man, not his hand. When he has mastered a skill, the whole man has it, uses it, and is proud of it. The man himself has ambitions to which the job may or may not be related. The man himself enjoys doing it, or is indifferent to it. The man himself basks in the appreciation of his fellows when they recognize that he has done the job well. Anything which connects with his interest affects all parts of him. His eye brightens, his mind becomes more alert, his hand more sure. Recognition of success in one part of the job reacts to heighten his interest in the job as a whole, and he does the whole job better. Conversely, failure in any part of the job depresses the whole man, his work and his attitude toward the job - unless he regards the failure as a challenge, analyzes it, and learns how to overcome it.

The largest factor with which a steward has to deal is his worker's "interests." This emphasizes again the need for the steward to become well acquainted with the members as persons, to understand their backgrounds of experience, their hopes and purposes for the future, their bents and special abilities, all in order that he may help them to discover real and lasting connections between themselves and their jobs.

5. How does he respond to recognition? - Does praise stimulate him? How does he take criticism?

A little recognition adds zest to the job and stimulates a man's efforts. This is especially true of the learner, because he feels insecure and uncertain about himself anyhow. Building his confidence is part of the job.

The most tangible form of recognition is, of course, the weekly pay envelope. An increase in his rate is a visible goal. But so many factors over which the steward has no control enter into requests for wage increases

that he finds other forms of recognition also necessary. When a steward notices that a new man is doing a good job, or when a supervisor tells him so, he can help the new man by telling him he's doing well.

Praise in the presence of the group is an effective form of recognition, so long as it is fair. It is usually stronger than praise in private but more difficult to give because the members of the group are always making comparisons. Both approval and correction are necessary, but criticism given before the group usually results in confusion or resentment.

The new worker learns more from praise than from censure. The reason is simple. He is blundering about, seeking the right way to do each part of the job. When he happens upon a right way, and someone approves it, he knows he has got that part of the job, and seeks to repeat it. At the same time he experiences a glow of satisfaction which spurs him on to master other parts of the job. But suppose he tries a wrong way and is "bawled out?" What has he learned? Simply that that one way is wrong. He still does not know a right way and may try many other wrong ones before he finds a right one. Meanwhile he feels discouraged because of the disapproval. Such a moment can be seized to demonstrate again the "right way" to do the operation, though that is beside the point here. It is often necessary to point out mistakes but, even at its best, censure or adverse criticism helps the learner too slowly on his way to skill. Instead it is better to catch him as often as possible doing the right thing, even by chance, and speed him on his way with a word of appreciation.

6. Does he stand on his own feet? - Does he lean on other people too much, or go to the opposite extreme and act as if he knows it all?

Most new workers are a bit fearful and lacking in confidence, some more and some less. They show it in curious and contradictory ways, as the above questions suggest. A little fear when facing a new situation serves to awaken most persons to greater alertness and effort. They are able to rise to the occasion and soon overcome their fears. They "take things in their stride." Yet there are many individuals who lack emotional balance, who have not learned to take life as it comes, to face reality as adults. It is important, however, to remember the caution about "die-casting" people into molds, to notice "the degree to which" the individual lacks emotional balance. Differences in individuals range all the way from the person who adjusts himself to the job situation promptly, stands on his own feet and quietly tackles everything in a matter-of-fact way, to the person who leans on others and expects favors, who covers his fears with overboldness, or who seeks to "make a good impression" instead of concentrating his attention on learning the job.

While the steward cannot go along indefinitely trying to help a maladjusted person "grow up," he can often add to the timid man's confidence

by pointing out his successes and, on the other hand, bring a bluffer back to reality by facing him with the demands of the job. He is interested at all times in each operator's reactions to the job and to his fellow-workers, because they are facts which affect his doing the job, his attitude toward it, and toward the union.

7. Does he seem ill-adapted to the job? - In spite of the best efforts of line supervisors and personnel organization, employees are sometimes placed on jobs they cannot do satisfactorily. Two cautions are in order here, however.

First: Do not assume that an employee is a misfit in a job until he has been fully and correctly instructed on that job and has shown that he cannot do it successfully. Many men have been called misfits on jobs they never had a fair chance to learn. Often a slow learner makes an excellent operator. It is a misfortune for him if he has to begin the job under a supervisor or instructor without patience and willingness to instruct. A steward should not ask that a worker be transferred until he is really sure that he is a misfit.

Second: Do not assume that when a worker is a misfit in one job he is useless. Any steward of long experience could tell stories of "misfits" who found other places where they made good. Few misfits are totally unfit.

Get acquainted with the employee, win his confidence, discover what he can do and likes to do, find out his difficulties on the job, and see that he either learns it or gets a fair trial at other jobs for which he is better adapted.

8. Does he get along well with other people in the department? - Sometimes men know how to do their jobs well, and yet they are not effective because they do not get along well with the people with whom they work.

Consider whether any differences in your relationships with the various people are part of the situation.

You may need to try to get the team re-aligned in order to get a group to work together.

THE STEWARD AND THE SUPERVISOR

No one can deny the importance of good working relations between the union's representatives and management's representatives. Because the steward and the supervisor are in immediate contact with the workers in the shop, they control the basic foundations for industrial peace. The best contract in the world between labor and management becomes a scrap of paper

unless it works in the plant. This is the job of both the steward and the supervisor. Due to withdrawals to the armed forces there are many inexperienced stewards. They need help and understanding.

It is well to keep in mind that the steward's job is to represent members, not to act as an impartial arbitrator. By the same token, a supervisor must represent management's interests to the best of his ability. However, if both can negotiate on a factual basis, their mutual problems can then be settled on merits without a loss in prestige by either party. Only through mutual understanding and respect between steward and supervisor can we hope to achieve industrial harmony. Without such harmony we cannot achieve a maximum in war production and cooperation in the reconversion program.

Today as never before the settlement of grievances within a plant is vitally important. Every unsettled grievance tends to lower working efficiency and thus reduces output. When both stewards and supervisors acquire the skill of working with people and handling problems that involve people, they will settle many complaints as soon as they arise and not lean on the slower process of the grievance machinery where decisions may be delayed for months.

SUMMARY

Good stewardship is not a skill which can be mastered overnight - human beings are complex. But it is a skill in which you improve on the job, and one which gives returns to you, your department, your plant, your union, and the war effort.

VI—Program Development

Training Within Industry's Program Development Institute was provided in order to give training in analysis of production problems and planning of training to meet plant needs.

The training required five days and was given to groups of ten plant representatives to whom had been assigned functional responsibility for training.

PROGRAM DEVELOPMENT INSTITUTE

WAR MANPOWER COMMISSION
BUREAU OF TRAINING
TRAINING WITHIN INDUSTRY SERVICE
JUNE 1945
WASHINGTON, D.C.

7-6220 Cover

P R O G R A M D E V E L O P M E N T I N S T I T U T E

How to Meet a Production Problem Through Training

Issued to _____

By _____

On _____

War Manpower Commission
Bureau of Training
Training Within Industry Service
Washington, D.C., June 1945

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WAR MANPOWER COMMISSION

WASHINGTON 25, D. C.

June 1, 1945

To the Program Development Institute Conductor:

Your work in helping plant representatives to acquire the skill of meeting production problems through training can affect every person in the plants represented and presents the opportunity of helping to overcome production interferences which are critical in the war effort.

The developing of training plans to meet the plant's own specific needs is an in-plant job - no outsider can know the underlying causes of production problems. Each plant should have a designer of training. In some plants he will have a training title but he will not in others. The only important thing is that he have functional responsibility for the planning of training to meet production problems. It is your responsibility to (1) see that the right man is selected for the Institute, (2) that management understands the objective of the Program Development Institute, and (3) to give this man an opportunity to acquire this skill.

Each Program Development Institute presents a challenge - you as Institute Conductor must instruct the members, stimulate them to practice, observe their work, and put them on their own before the Institute closes. Your objective is to help the plant man to acquire this important skill, and to get during the Institute a start which will have results so convincing that continuing use of the method in his plant is assured.

Sincerely,

C. R. Dooley
Director
Training Within Industry Service

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Disinfectant Reprocessing Problem
Defective Hydraulics Problem
How Training Can Be Done - Methods and Aids
How to Get a Plant Training Plan into Action
How to Get Continuing Results from Plant Training Programs

Second Day - Introducing the New Employee to the Job
Induction Plan Step 2 Work Sheets

Third Day - Management and Skilled Supervision
Improving Supervisors' Knowledge of the Work
Keeping Supervisors Informed About Their Responsibilities

Fourth Day - How to Select New Supervisors

PROGRAM DEVELOPMENT INSTITUTE TIME SCHEDULE

First Day		**First Day**
25 min.	Introduction and Plan of Institute	
20 min.	Definition of Terms	
15 min.	Management Chart	2 hours
10 min.	Problem Sheet	55 min.
5 min.	4-step Method	
10 min.	Intermission	
1 hr.30 min.	Application of method - Cost Records Problem	
1 hr.	Importance of evidence and training action, and 2 drill problems on Step 1, 1 group, 1 individual	
1 hr.	Methods and Aids, and 2 drill problems on Step 2	3 hours 30 min.
10 min.	Intermission	
1 hr.	Getting a Plan into Action, and 2 drill problems on Steps 3 and 4	
20 min.	Assignment for second day	
Second Day		**Second Day**
10 min.	4-step Method	
2 hr.50 min.	3 Assigned problems (10 minutes intermission included)	3 hours
1 hr.30 min.	Induction	
10 min.	Intermission	3 hours
2 hrs.	3 Assigned problems	45 min.
5 min.	Schedule for third day	
Third Day		**Third Day**
2 hrs.	3 Assigned problems	
10 min.	Intermission	2 hrs.
45 min.	W.M.C. Training Services	55 min.
30 min.	Plant meetings	1 hr.
40 min.	1 Assigned problem	55 min.
45 min.	Assignment for remainder of Institute	
Fourth Day		**Fourth Day**
20 min.	Difference between problems, programs and plans	3 hours
2 hr.40 min.	3 Plans (10 minute intermission included)	
1 hr.	Selecting supervisors	3 hours
2 hr.40 min.	3 Plans (10 minute intermission included)	40 min.
Fifth Day		**Fifth Day**
1 hr.40 min.	2 Plans	
10 min.	Intermission	3 hours
20 min.	Checking results	
50 min.	1 Plan	
50 min.	1 Plan	
10 min.	Relation of plans and programs	not more
10 min.	Intermission	than 2 hrs.
1 hr.	1 Plan	55 min.
45 min.	Summary	

PROGRAM DEVELOPMENT INSTITUTE

	Purpose	Emphasis
FIRST DAY MORNING	To establish that the Institute is designed to give members practice in using the 4-step method in the Institute and in their own plants and to illustrate the method by application in a problem presented by the Institute Conductor	Training must be designed to meet specific production problems. This is in-plant, on-the-job work. Details of a training plan are determined by analyzing evidence of the problem. Stress that discussion is on method, not on this problem.
AFTER-NOON	To familiarize members with use of work sheets through practice on drill problems, and to show relation of steps.	All four steps are necessary in order to meet a production problem through training.
SECOND DAY MORNING	To get practice, skill, and conviction through use of method by each member on a standardized problem.	Training cannot be planned in an Institute, but understanding of method can be acquired through practice.
AFTER-NOON	To present information about characteristics of successful induction plans. To continue practice on assigned problems.	Induction must be planned specifically for each plant.
THIRD DAY MORNING	To continue practice on assigned problems. To outline W.M.C. training services.	Detail is needed in both evidence and content. Public agencies give some assistance in meeting plant needs.
AFTER-NOON	To establish key points of effective meetings. To continue practice on assigned problems. To outline members' use of method in own plants.	Each member is to make complete 4-step plan for own plant. Meetings are depended on in in-plant training programs.
FOURTH DAY MORNING	To have two plans presented. To give each member opportunity to improve own plan on basis of group discussion of methods.	Evidence of the production problem must be met by the plan. Only member presenting plan has facts about evidence in his plant.
AFTER-NOON	To present T.W.I. plan for supervisory selection. To have three plans presented.	Training director is concerned with caliber of supervision.
FIFTH DAY MORNING	To emphasize importance of checking results, and to consider evaluation techniques. To have three plans presented.	Results are checked against evidence of need - Is the production problem being met through training? Training plan must include Step 4.
AFTER-NOON	To have two plans presented. To stress importance of relation of any training plan to other plans and programs. To stress line and staff responsibility. To get conviction of value of 4-step method.	Program Development skill is acquired through use of method. Timing and need must be considered before plan is scheduled. Staff provides technical "know-how." Use of method will help meet production problems through training.

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C O D E

CAPITALS . . . . . Section heads

Horizontal line across page . . . Encloses section for timing

Plain type . . . . . Trainer says in own words

* Star in front of line . . . . . Trainer says verbatum

Material between lines . . . . . Board work

[Bracket] . . . . . Instructions to trainer

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PROGRAM DEVELOPMENT INSTITUTE

First Day - Morning

Allow 25 min.

[OPENING THE INSTITUTE]

[District Representative welcomes Institute members, introduces himself and the Institute Conductor - not more than 5 minutes.]

[Institute Conductor acknowledges introduction.]

1. Let's get an idea of who's here.

   Use name cards if appropriate.

   [Ask each man to tell his position, to whom he reports, size of his plant (now - before the war - what it may be a year from now), whether plant is making new product, etc.]

   All of you have responsibility for organizing and coordinating training to meet production problems. You are not trainers. You plan training, see that it gets done, and check results.

2.* In this Institute we are going to work on how to meet a
  * production problem through training.
  * This is not a meeting. It is a work session; we will
  * learn by doing.
  * You have been assigned the responsibility for developing
  * training plans in your plants.
  * Your managements have sent you here. They will review
  * with you the plan you develop.

[Write across top of blackboard:]

How to Meet a Production Problem Through Training

3. This Program Development Institute requires five days:

   the first three, today and the next two days
   the last two on _____ and _____.

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Between this section of the Institute and the time when we reconvene, you will spend considerable time in your own plant, planning to meet a current production problem through training.

When we all return on _____ we will take up, individually, the training plan each of you prepares to meet a problem of your own plant.

25 min. to here

[If Institute time has not been cleared for all members, take up individually during intermission.]

Allow 20 min.

[DEFINITION OF TERMS]

Just to keep straight - to see that we have the same meaning for the terms - let's agree on some we will be using all the time.

First, let's make sure we all have the same understanding for what we have on the board - "How to Meet a Production Problem Through Training."

[Do not ask what production means. Give definition. Discuss the definitions until each member of the group understands them all. Get acceptance. Put on board briefly. Follow same procedure for each. Tell members they will not need to write them down, that you have copies.]

1.* By "production" we mean the end result - the product or
  * service.

What is production in the organization which sent you here?

[Ask each member.]

For a man sent by a plant, it is the end product of the plant.

A man who represents just a department of a plant is concerned with the finished work of that department - perhaps a sub-assembly.

In a non-manufacturing company or department, production may be something like "passenger railroad transportation" or "bills for electric current."

By production we mean:

[Write on board:]

What is Production? -
End result - product or service - of an organization, plant, department, or unit.

2.* By a "production problem" we mean anything that keeps us from
* getting out the work for which our organization exists.

[Write on board:]

What is a Production Problem? -
Anything which interferes with production.

Scrap is a common production problem.

We uncover some production problems and try to correct or improve them. Others can be anticipated and we may prevent them.

In your plants there are problems that interfere with getting out your work of _____ and _____. You are going to work on solving those problems.

3.* Training is a way to solve a production problem.

[Write on board:]

What is Training? -
A way to solve a production problem.

There are many ways to solve production problems. Engineers attack those involving machines, and metallurgists and chemists work on materials.

* Training deals with people.

You will notice that we say a way - not the only way.

And that we say a production problem - you have to tackle one at a time.

Training is a way to solve a problem of scrap.

4.* There are different causes for scrap. Several kinds of
* training may be needed. In this Institute we will say that
* a training plan is a way to get at a specific part of a
* specific production problem.

5.* A training program is the organization of all the training
* plans stemming out of one production problem.

[Write on board:]

What is a Training Plan? -
An organized method of solving a specific part of a production problem.

What is a Training Program? -
A combination of training plans coordinated to meet the training needs caused by a specific production problem.

That is, all of the training plans connected with a particular scrap problem are the training program for that problem.

6.* All of you are here because you have functional responsi-
* bility for training.

You have various titles in your own organizations. Some of you have full-time responsibility for training, some have other duties.

* All of you are here for a common purpose - developing and
* coordinating training plans and programs in order to help
* management solve its production problems through people.

7.* What is management?

[Write on board:]

What is Management? -
Those responsible for end results - product or service.

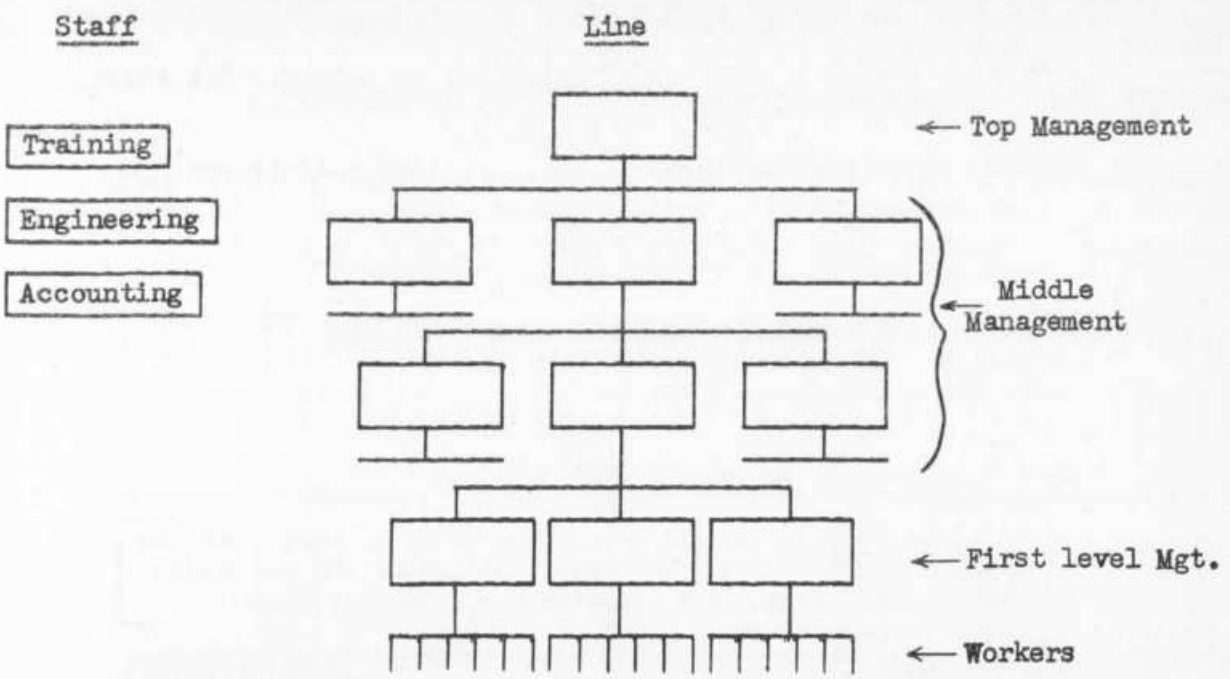
45 min.
to here

Allow 15 min.

HOW TRAINING TIES IN WITH MANAGEMENT

1. Now let's see where the training function fits into the management picture.

[Erase all board work except slogan across top. Develop chart from bottom to top, and line before staff, explaining the necessary variations which are caused by size of the business and the fact that one business is different from another. Do not connect staff positions to line organization - explain that the place each ties in is different in each plant.]



[Use the following as ideas to discuss while you are working on the chart.]

Line organization is responsible for the actual accomplishment of end results in terms of product or service. The staff - engineers, chemists, purchasing agents, personnel men, accountants, lawyers, training men - provide service to the line organization.

Talking about training as a staff service does not mean "a training staff." It does not always mean, in small plants for instance, that it even takes one man's full time.

2.* Some of you hold positions in both the line and the staff.
* When you are planning training, you are filling a staff
1 hr. * responsibility, even if the line person you are assisting
to here * is yourself.

Allow 10 min. [PROBLEM SHEET]

Each one of your plants is different.

Do you have any common problems?

Let's take a look at some common problems in plants. How about these on this sheet.

[Distribute problem sheets. Announce that definitions are on other side.]

Do you have any of these problems in your plant?

[As soon as one member indicates his plant has a problem, ask:]

Were people involved?
Could this problem be met through training?

[Continue only until you have acceptance of idea that the problem sheet represents common problems. Do not count "most common problems" or belabor the discussion.]

Since several have same problems, is there a possibility that just exactly the same approach can be used? No.

Training plans must be tailor-made for a particular plant.

Your problems will not be exactly alike - therefore, your plans to meet them cannot be exactly alike.

* In this Institute we cannot decide what is needed in any plant.
* We cannot plant training for your plant.

* Spotting production problems and developing training plans
* are in-plant jobs.

We are going to develop skill in using a 4-step method of meeting production problems through training.

1 hr.
10 min.
to here

[Erase all board work except slogan.]

Allow
5 min.

[THE 4-STEP METHOD]

[Present - do not develop.]

* The first of the four steps of the Program Development method is:

[Put on board, under slogan:]

1. Spot a production problem.

* One production problem may indicate that several training plans
* are needed but we can only:

[Put on board next:]

Tackle one specific need at a time.

* Step 2 is:

[Put on board:]

2. Develop a specific plan.

* We have a caution with this step:

[Put on board:]

Watch for relation of this plan to other current training plans and programs.

* Step 3 is:

[Put on board:]

3. Get plan into action.

* It is very important to:

[Put on board:] Be sure management participates.

* Step 4 is:

[Put on board:] 4. Check results.

* And we end with what really counts:

[Put on board:] Is the plan helping production?

[Leave on board.]

1 hr. 15 min. to here * This is the method we are going to use.

[Take 10-minute intermission here.]

Allow 1 hr. 30 min. [DEMONSTRATE USE OF PROGRAM DEVELOPMENT 4-STEP METHOD THROUGH USE OF COST RECORDS PROBLEM.]

1. Training as an everyday operating tool cannot be planned by any outsider.

   But we can get an understanding of the method by looking at how one training director used it on a production problem in his plant.

2. Here is what one training director in a gear manufacturing plant faced. I will read this to you just as the training director wrote it down.

   Last Monday I went to the works manager's weekly meeting. The cost accountant and I were there as well as the six superintendents. The works manager was all worked up about the cost records, and got pretty tough with the chief accountant. He asked, "How does it happen that those 50 men at double time the Sunday after the breakdown

in Department 2 didn't affect costs? That got me started on going over a lot of our cost records and you can't make me think our estimates are so good that every job hits the estimate - never over, never under."

He went on to say, "Costs don't seem to mean a thing around this place. Do you think I'm going to wait for a government auditor to find what's wrong? And what kind of fix are we going to be in to go after business when the war's over? I want to know what's wrong, and I want it fixed up."

3. This works manager had a problem. Do you remember we said that we tried to correct or improve some conditions? That's what this works manager, this member of top management who was responsible for production, wanted. He was also trying to anticipate something that looked even worse. Now what was his production problem?

[Discuss until group realizes that the production problem is "Inaccurate cost records." Continue with problem.]

The cost accountant said this wasn't anything new - he'd questioned the superintendents' weekly reports before, and he didn't want the same old story - that they just made them up from the foremen's Daily Operating Reports.

The superintendents said they had never realized how their weekly reports tied in with the company's operations and profits. They said they had never made much of this point with the foremen.

The upshot was that the superintendents said they would get their foremen together so the cost accountant could discuss this cost record problem with them. I went to that meeting, too. Both the chief accountant and I learned some things there. A foreman has an estimated cost on each job in his department. If he's going to run over more than 5%, he has to get advance approval. It isn't hard to get, but it does take a lot of paper work.

If he saves time on one job, he can take care of running over on another. In that way, he can avoid asking for a change in the estimates. The cost accountant was horrified that they juggled costs like that.

Here's how it boiled down. A foreman may have 20 to 50 workers. Now each worker has a time card and even the accountant agrees it is a very detailed and complicated card.

The time cards are a sore subject. Most of the time clocks are in out-of-the-way positions and the average is one clock for 200 people.

Well - nobody bothers filling in the job numbers on time cards. The foremen would just as soon not have them filled in - they mark them up after they see what labor costs they should charge, according to the estimate! The foremen spoke up and said they had never understood how important their Daily Operating Reports were.

Don't think they said all this without saying plenty about new time cards, moving the time clocks, making it easier to revise estimates. The superintendents and the cost accountant answered quite a few questions. The cost information does have to be recorded. The plant cannot charge more than 5% over the estimate without getting the Army in on it.

As to the time clocks - we can't get any more, but we may be able to find better locations. Maybe the time card can be changed - but not overnight. I looked at some of the time cards and I know I'm really going to have to dig into this time card angle, too. But the cost records have to be corrected <u>right away</u>.

4. This plant <u>did</u> have a problem. The works manager realized that the company's position was questionable both on current government contracts and for its post-war business.

Now we are not going to concern ourselves whether this kind of mess <u>should</u> happen. It <u>did</u> happen.

(1 hr. 45 min. to here) We will look at what can be done to solve the problem, using the Program Development 4-step method.

5. <u>Distribute cards individually.</u>

Let's look at these cards.

* Step 1 is "Spot a Production Problem." We agreed that
* the production problem is "Inaccurate cost records."

In this case, the production problem was spotted by the works manager. Sometimes the training man will spot the problem, sometimes someone will call it to his attention.

But even if it is called to his attention as it was this time, the works manager rarely gives the training director enough information for him to actually plan the training needed. The training man has to dig into it himself.

[Refer to card.]

* Get supervisors and workers to tell about their current
* problems.

Do we know something about this? The foremen felt they certainly had problems - those Daily Operating Reports were headaches.

And the workers thought they had problems too. They didn't like the time cards and they didn't like the location of the time clock.

So far the training director hasn't talked to the workers, but if or when he does, he'll probably hear a lot more.

* Uncover problems by reviewing records - performance, cost,
* turnover, rejects, accidents.

This problem was uncovered when the works manager took a look at the cost records.

* Anticipate problems resulting from changes - organization,
* production, or policies.

The works manager in this problem was looking not only at the plant's current standing but at its competitive situation later.

* Next we come to "Analyze this evidence," and after that
* we find "Identify training needed" so that we can "Tackle
* one specific need at a time."

* Let's try to analyze this evidence so we can do just that.

* Remember that all we are doing is looking at the 4-step
* method. Only the person who knows all about this plant
* is going to be able to solve its production problem.

* But we can gain familiarity with the method by looking at
* this sample problem. We can make sure that we all have a
* common understanding of the method.

We will analyze the evidence we have in order to identify training needed.

Just to help you recall the evidence in this problem, here is a copy of it as read.

[Distribute Cost Records problem.]

[Erase previous board work. See blackboard guide.

Put heading for evidence column on board.

Ask members for evidence, to suggest action, etc. Do not let this drag. It is not necessary to get these particular words on the board, or this order, but all material must be included. The Institute Conductor should use leading questions. Inquire what came out of the general superintendent's meeting. Use "What about the location of the time clock?"

Fill evidence column first. Then say, "We look at the evidence and ask 'Is any action needed? Specifically, is any training action needed?' "

Fill in training column headings, and question the first item of evidence.

Ask "Is any other action needed?" Fill in column heading.

Take each item of evidence separately.

Make sure that training of foremen in how to make out D.O.R. is specifically mentioned. If necessary, say "This training director decided_____."

Do not erase any of this board work.]

* Since we can tackle only one specific need at a time, we
* will take the training of foremen in how to make out the Daily
* Operating Report.

(13)

(For use with Step 1 of P.D. Method - Use card)

What is the Production Problem? Inaccurate Cost Records

EVIDENCE	TRAINING ACTION NEEDED		OTHER ACTION NEEDED
	Training for Whom?	Training in What?	
50 men Dept. 2 double time didn't affect cost records	Foreman of Dept. 2	Accurate cost records	
Every cost report agrees with estimate			
Supt. makes weekly report from DOR's			
Supts. didn't understand relation of costs to operations	Superintendents	Importance of cost records	
Cost accountant had complained before			
Advance approval to run more than 5% over estimate			
Estimate change procedure complicated	Foremen	How to change est.	Simplify procedure?
Cost reports juggled to match estimates	Foremen	Imp. of cost records	
Foremen make DOR's from estimate, not from time cards	Foremen	How to make out DOR	
Foreman has 20 to 50 workers			
Time clock location bad			Move clock?
Time cards not filled in by workers	Workers	Imp. of time cards	
Time cards complicated	Workers	How to fill time card	Simplify card?
Foreman doesn't require filling in time cards	Foremen	Imp. of cost records	
Foreman fills time cards to match estimates	Foremen	Imp. of cost records	
Foremen didn't understand relation of DOR's to operations	Foremen	Importance of DOR	

"TACKLE ONE SPECIFIC NEED AT A TIME"

That is the only part of this problem we can tackle right now. The others depend on simplifying procedures, new time cards, etc.

But we can get started on how to fill out the DOR right now.

We don't know enough about this plant and its cost procedures to know how much detail is necessary.

We do know that something has to be done right away to get accurate cost records every day.

(2 hrs. 5 min. to here) Something can be done right away about the Daily Operating Report.

6. Step 2 is "Develop a Specific Plan."

Let's look at our cards.

What is the specific plan? - the "Daily Operating Report."

This training director combined several items from Step 1.

Who will be trained?

We said that the foremen had to be trained. There were 30 of them.

What content?

We are going to have to consider two things - the foremen do not understand the importance or the use of their DOR's and they are not making them out properly. These points will have to be considered when we plan content.

Who can help determine?

The training director certainly will need help in determining the content. Both production executives and a staff man, the chief accountant, are in on this.

How can it be done best? and Who should do the training?

There are two quite different kinds of content involved.

(15)

(For use with Step 2 of P.D. Method - Use card)

What is the Specific Plan? Daily Operating Report

Training for Whom? Foremen Training for How Many? 30

What Content?	How Can It Be Done Best?	Who Will Train or Help?	When? How Long?	Where?
1. Importance of D.O.R. Government audit Legal responsibility Prospective orders Post-war business	Personal appeal	General supt.	½ hr. each grp. all 3 grps., 10 ea. next Mon.	Gen. supt's. office
2. Analysis of D.O.R.		Chief accountant	2 hrs. each grp. all on Tuesday	Conference room
Use in making weekly report	Blow-up chart of weekly report, explanation, questions			
Errors and effect	Sample sets of time cards, D.O.R.'s, weekly report, job cost report			
3. Filling in D.O.R.	Practice on sample material	Chief accountant	2 hrs. each grp. Wednesday	Conference room
Time card basis Charges to specific jobs Delay - charges to overhead Day work - how charged	Analysis of own reports			
Job charges vs. estimates				
Material charges			2 hrs. each grp. Thursday	Conference room

What is the Relation of this Plan to Other Current Training Plans and Programs? This is the most important problem in plant right now - this takes precedence over any other training program. This is only one part of the whole problem, but only one we can get at immediately.

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One is convincing the foremen that this is something important. We may need someone who carries a lot of weight to put this over.

Another is exactly how to fill out this report. Someone who really knows how to handle this report is going to have to do the instructing.

When should it be done - how long will it take?

We know that this is something that has to be done right away. Exactly how long it will take will depend on the specific content?

Where should it be done?

This depends on the plant and the facilities it has. Some training by its very nature has to be done where the equipment is - this is not that kind. What is required here is a place for the foremen to get together.

Step 2 ends with the warning, "Watch for relation of this plan to other current training plans and programs."

Sometimes a training plan just can't get started because the timing isn't right, because facilities and equipment are not ready, because there is no one available to do the training, because people can't take time off from production.

Other times a new plan is so important that other training is delayed or stopped if necessary.

In any case, you have to consider what else is going on in the plant.

* We are not going to be able to design this plant's training
* plan, but we can see how this training director applied the
* method.

See blackboard guide.

Put in content item 1; take it across work sheet, then 2, then 3.

Present this step - do not develop. Discuss and clarify, but keep on the basis of what this training director did.

(2 hrs. 25 min. to here)

[Make sure group understands that practice is included because foremen are learning how to do something.

Show how content ties back to evidence. Stress - training director designed plan but is not going to train.

Do not erase board work.]

7. Now we are ready for Step 3 - "Get Plan into Action."

[Work from card.]

Often, in order to get support for a training plan, it is necessary to do some selling.

While the training man was handed the problem - he will still need to "Stress to management evidence of need" - in the light of the facts and figures, he is going to have to sell the works manager on putting 195 hours of the foremen's time into this.

He has to sell the plan by which he expects to solve the problem, so he will "Present the expected results" and "Discuss plan - content and methods."

Management wants something done about this problem. To answer the question about when he's going to do something, he will "Submit timetable for plan."

Often it is necessary to "Train those who do the training." If someone who doesn't know the Daily Operating Report is to do the training, he would need help, wouldn't he?

And if he knows the report, but doesn't know how to instruct, he'll need help.

The best plan fails if the instructor is not able to instruct.

The next point on our card is "Secure understanding and acceptance by those affected."

In this plant there is pretty strong feeling about those Daily Operating Reports. They are regarded as a nuisance - a necessary evil to be gotten rid of with as few headaches as possible.

The works manager is going to have to "Fix responsibility for continuing use."

It's going to take some attention to get the foremen to understand why the plant needs accurate Daily Operating Reports.

The superintendents may have to do a lot of hammering to get old habits broken.

(2 hrs. 35 min. to here) Step 3 ends with "Be sure management participates." We don't just mean "approves." Managers have to operate this plan as they do other plans dealing with production.

8. Step 4 on our card is "Check results."

It will be very easy to check results. They can be checked against the previous unsatisfactory conditions.

The "results that will be looked for" will be reports that give an accurate report of production costs.

How will management be informed? Through the same reports which pointed out the problem in the first place. You don't have to set up elaborate new reports.

The training director is interested in something else besides results. He has to know "Is the plan being followed?"

If the plan isn't followed, and results are poor, that's one thing. If the plan is followed, and results are poor, that's another.

Some plans have to be kept in use - some have a specific, short-term purpose. This training director will help the superintendents to see that the foremen don't slip back into bad habits and that new men get off to the right start.

If the plan continues, if there is any change in plant procedure - such as new time cards - he will need to consider whether any changes in the plan are necessary.

Step 4 ends with "Is the plan helping production?" Do you remember why this was a production problem? In this case the management wants the present condition corrected and serious trouble prevented.

It is necessary for Step 4 to be worked out when the training man makes his plans.

9. At the end of our card is something the training man must not forget. We put it there to remind you regularly.

[Read it aloud:]

* Responsibility for Training Results.

* The LINE organization has the responsibility for making
* continuing use of the knowledge and skills acquired through
* training as a regular part of the operating job.

* The STAFF provides plans and technical "know how" and does
* some things FOR but usually works THROUGH the line
* organization.

[Tie back to line and staff chart.]

2 hrs.
55 min.
to here

10. We have taken a general look at the method applied to a sample problem. Are there any questions?

[Before the session starts, Institute Conductor puts form for Work Sheet 1 on board, and for Work Sheet 2 on reverse of other board.]

Allow 20 min.

[IMPORTANCE OF EVIDENCE AND TRAINING ACTIONS]

1. There are some tools - some work sheets - that we use in this 4-step method.

   This afternoon we are going to learn to use those tools. We are not interested in the problems themselves, or the plans - just in the tools that make the method simpler.

   First we'll look at Step 1.

   [Ask members to look at cards - have one read Step 1.]

   You will recall that we followed a definite pattern as we worked on the blackboard for Step 1 of the cost records problem this morning.

   Here is a simple form similar to the one we have on the board, and which we used this morning.

   [Pass out supply of blank Step 1 Work Sheets.]

   Let's look it over to be certain we understand it.

   [Read first line under heading.]

2. What is the Production Problem?

   [Review definitions of "production" and "production problem."]

   * One way of spotting the production problem is to ask ourselves
   * what we are trying to
   * correct, or
   * improve, or
   * prevent.

   This brings out
   What is wrong - a production problem

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What is slow, wasteful or expensive - a production problem
What could happen - a production problem

We are not trying to identify a training problem - it must be a production problem.

[Remind members of what a production problem really is - anything that interferes with production. Ask:]

What is wrong in the plant?
What are you trying to stop?
What does the boss want?
What conditions does management want corrected or anticipated?

[Ask members for examples in their own plants - tie back to problem sheet if necessary.

Be certain it is a production problem, not a training problem. Discuss until all are clear as to the difference.]

3. Next we have the column headed Evidence.

This means facts and figures; underlying causes and conditions; what has to be corrected, improved, prevented.

In this column list ALL evidence available.

We can determine much of it by using the first three subheads under Step 1 of the 4-step method.

[Refer to card. Perhaps have a member read an item, then discuss and amplify it in terms of the types of plants represented in the group.]

Much of the evidence has to come from people in the line organization. The closer you are to the line, the better job you will do on getting evidence.

The entries under evidence should be simply stated, but accurate, brief and clear. Get evidence in figures so you will have something concrete to check against when you check results.

[Always exhaust all three sources of evidence (first three subheads of Step 1) before continuing with the problem.]

It is only when we get at underlying causes, reasons, and related conditions that we really see what can be done about the problem.

[Be certain everyone understands what is meant by EVIDENCE before you go on to the next column.]

4. Next is a 2-part column headed TRAINING ACTION NEEDED.

That word "needed" is important. We are not interested in training that could be undertaken on a general basis - just on that which must be done.

The two parts are Training for Whom and Training in What.

Training for Whom means the actual people who will be trained. For example:

Supervisors	Clerks
Welders	Engineers
Machinists	Department heads

Training in What means the specific knowledge or skill needed by any particular person, or what they need to know, or what they will have to learn to do.

The training is not planned here but needs are identified.

This is the place where you make notes about training action to overcome lacks, improve present performance, or head off future lacks.

[Cite examples and have group contribute additional examples.]

5. The last column is Other Action Needed.

Here may be listed suggestions for something other than training.

Anything which bears on the production problem but which is not accomplished through training - such as changing an accounting procedure or moving equipment.

Sometimes the "other action" must come before "training action." The training director usually can't take this

"other action." But he will call attention to its importance.

You can't use this as an alibi. If there is some part of the problem which can be solved through training - get in on it. Call attention to other action.

6. At the bottom of the work sheet is a very important line: Tackle one specific need at a time.

How do you decide which training need to tackle first?

[If members do not suggest these points, Institute Conductor makes them:

	neediest need	good field to make showing
	easiest to sell	no delays for this plan
20 min.	instructors ready	may not have to try others
to here	fastest results	if this works

Allow 40 min.

[DRILL PROBLEMS FOR WORK SHEET NO. 1]

1. Here is a sample problem which I'd like to tell you about.

[Tell this problem as follows:]

A spice company has a war contract for a powerful disinfectant. In order to keep it at full strength until it is used, it must get as little air as possible.

The packaging department has only one shift. There is a lot of waste because loose powder is left open at the end of the shift.

The powder can be reprocessed but the result is that only 80% of the production is packed the first time it's processed.

The supervisors don't seem to know how much disinfectant to have sent in - if the operators run out of powder, it means delay. So most of the supervisors order too much.

Everything in the plant is running very smoothly except for this problem. The only training going on at present is a course out of hours.

(For use with Step 1 of P.D. Method - Use card)

What is the Production Problem? 20% reprocessing of disinfectant powder

EVIDENCE	TRAINING ACTION NEEDED		OTHER ACTION NEEDED
	Training for Whom?	Training in What?	
Disinfectant must be protected from air	Supervisors Operators	Properties of disinfectant Importance of this product	Closed hoppers?
Only 80% of production gets packed	Supervisors	Estimating needs Disposal of excess	
Disinfectant left open approximately 16 hours at end of shift in packaging department			Return unpacked stock end of shift?
Supervisors order too much disinfectant	Supervisors	Estimating needs	
Supervisors want to avoid delays in getting disinfectant			Scheduled deliveries?

"TACKLE ONE SPECIFIC NEED AT A TIME"

[Distribute narrative account of Disinfectant Reprocessing problem. Ask the members to tell you how to fill in the work sheet on the board. For "training in what" use the smoke-out questions about knowledge or skill. Use leading questions if necessary. Ask them to copy on their own work sheets.

Keep group together. Clarify misunderstanding. Get acceptance. Remember this is practice designed to get familiarity with the work sheet - this is not solving a problem.

Follow blackboard guide for ideas, but not exact wording. As necessary, use "this training director --- ."]

Let's get one thing straight. We are not "doing a Step 1" on this problem. We are just learning to use the work sheet you will use when you really go to work on a problem. We cannot determine underlying causes in a problem we know little about. But we can make sure we recognize an underlying cause.

Let's not worry about whether there is enough evidence. In just this much we have the full range of the evidence column.

We have some figures - only 80% of the disinfectant production goes directly into packages. Unpacked disinfectant is left open until the next day.

And it is a fact that this disinfectant must be protected from air so it will remain full strength.

Now what are the underlying causes? The supervisors order too much disinfectant because they don't want delays. They don't seem to be able to figure how much they really need.

[Explain other columns.]

What we have is not a complete Step 1 - but do we understand the Step 1 work sheet?

[Leave Step 1 on board.]

2. Here is another problem - you, individually, will fill out a Step 1 work sheet just as we did together.

[Distribute copies of Defective Hydraulics problem to members. Read problem aloud.]

Planes are being rejected because of a specific defect in the hydraulic system. This happens in about one plane out of three. The people who are installing the hydraulic system are highly experienced workers.

The situation was bad enough that the superintendent took enough supervisors and inspectors to stay right with the men who were installing the hydraulic system. Nobody could find any faulty work. Yet one plane out of three had leaks by the time it got to final inspection.

Then they began to trace what happened after the hydraulic system was installed.

About two production stations later, after the hydraulic system had been covered by plates, the radar equipment is being installed.

The radar installers did not know that a hydraulic system was under the plates, and were taking no pains to protect the system from damage. Sometimes they drilled right into the hydraulic system.

Spot the production problem here.

Write the production problem on the work sheet.

List the evidence.

Decide what action, training and other, is needed.

[Observe each member individually. Coach where necessary. DO NOT talk to disturb the others. Make certain each column is correctly used by each individual. See guide for general outline of what should come out of this problem. Allow no more than 10 minutes for this. Watch for signs of finishing. Keep things moving. When most show evidence of being through, start the discussion.]

Let's see what we have done with this problem.

[Discuss with the group, calling on different members for their ideas on the various points. Remember, you are

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(For use with Step 1 of P.D. Method - Use card)

What is the Production Problem? Leaks in hydraulic system

EVIDENCE	TRAINING ACTION NEEDED		OTHER ACTION NEEDED
	Training for Whom?	Training in What?	
One plane out of three rejected at final inspection because of leaks in hydraulic system			
Hydraulic installers experienced			
Hydraulic installation checked - no faulty work			
Radar equipment installed after hydraulic system covered by plates	Radar installers	Location of hydraulic system	
Radar installers not protecting hydraulic system - drill into it	Radar installers	Importance of hydraulic system	
		How to protect hydraulic system while installing radar	Put stop on drills?

"TACKLE ONE SPECIFIC NEED AT A TIME"

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confined to the facts of the problem, but that each person is an individual and as such is entitled to vary his convictions as he sees fit.

If members lean toward the "other action" of moving one system or the other, remind them that two-thirds of the planes passed inspection. Therefore, the systems don't have to be changed.

If one or more seem hazy about the procedure to be followed with the work sheet, you may find it advisable to place a portion of it on the second board. Do not belabor this phase.

Are there any questions on this method of using the work sheet for Step 1 in this procedure?

1 hr. to here — Clear up remaining foggy points. Make sure each member has substantially the same work sheet as shown on guide.

Allow 20 min. — DEVELOPING SPECIFIC PLANS

1. The work sheet for Step 2 follows the same pattern we used when we discussed the Cost Records problem this morning.

Pass out blank work sheets for Step 2 and turn second blackboard.

The first line after the heading is labeled "What is the Specific Plan?"

Here we write the name of the plan. In Step 1 we have considered the knowledge or skill needed by some specific people. We may combine several of those "training in what" items into one plan - or we may break one down into several plans.

You recall that our card says, under Step 1 -

"Tackle One Specific Need at a Time."

What specific need shown in the column headed Training in What have you picked to work on?

The name you give that training plan is placed on the first line.

2. The second line Training for Whom will be the employees who need this training, as shown in Step 1.

3. Training for how many means the number of people to be trained.

4. What content - here you will list the items of training material to be used in the plan - the specific knowledge you want these people to have, the skills you want them to acquire.

   This listing must be complete. Be specific - generalities are not enough.

   List just what you want them to learn.

   Go back to the evidence. Underlying causes must be remedied - list exactly the content to do that.

   [Clear up any questions on this column. Give examples - get examples from members.]

   Remember the rest of that item on the card - Who can help determine?

5. How Can It Be Done Best?

   This column heading covers a large field in itself.

   Here are some ideas which may be helpful in this connection.

   [Pass out Methods and Aids material.
   Point out that the Methods can be used by anyone in any plant - the Aids will depend on what you need, what you have or can have.
   Tell members that the material on conducting meetings will be taken up another day.

   To the extent appropriate, review Job Instruction, stressing breakdowns and 4 steps.]

6. Who Will Train or Help?

Pick individuals who are already prepared for this work or who can be coached.

[Give and get examples of this.]

7. When? - How Long?

Add the number per group in this column if number to be trained is to be broken up.

Check against evidence for importance of problem in relation to time it takes.

8. Where?

Here, too, be specific.

Check against the evidence for wise choice of place.

Avoid using a meeting room just because a meeting room is available. Perhaps other places would be more effective for some kinds of training. On the other hand, if the shop is noisy and a machine can be put in an empty room, consider that.

[Be certain every member understands the columns.]

9. The last line on our work sheet is "What is the relation of this plan to other current training plans and programs?"

1 hr. 20 min. to here — What priority should be assigned to this plan? Consider the importance of the evidence. Look at the strategy involved.

Allow 40 min. [DRILL PROBLEMS ON WORK SHEET FOR STEP 2]

Let's see if we can use this form.

1. Do you all have the Step 1 work sheets you prepared on the Defective Hydraulics problem?

[Review evidence column.]

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(For use with Step 2 of P.D. Method - Use card)

What is the Specific Plan? Protection of Hydraulic System

Training for Whom? Radar Installers Training for How Many? 20

What Content?	How Can It Be Done Best?	Who Will Train or Help?	When? How Long?	Where?
Importance of protecting hydraulic system			1½ hr. tomorrow 20 in group	General foreman's office
Importance of hydraulic system to pilot and crew	Explanation	Test pilot		
Cost of repairing damaged hydraulic system	Analysis of cost figures	General foreman		
Location of hydraulic system	Cutaways. - explanation	General foreman		
Drilling holes for radar installation Placement of holes Depth of drilling - 1/8"	Demonstration - practice	Radar supervisor	½ hr. each man, schedule immediately, complete in 3 days	On job

What is the Relation of this Plan to Other Current Training Plans and Programs? Will take only 2 hours of each operator's time, and 10 hours of radar supervisor's time - less time than to repair one damaged hydraulic system.

This points clearly to a training plan for the radar installers - they have to know the importance of the hydraulic system, where it is located, and how to protect it.

Will you make out a Step 2 work sheet for what could be done for just 20 radar installers. Now you may not know anything about hydraulics or radar. But we are not trying to develop a training plan. We are just checking understanding of this work sheet because it is a tool you will use when you go to work on a problem.

[Have members work individually. The attached Step 2 work sheet is for your use in questioning, but no attempt is to be made to get individuals to have their work sheets conform with this sample. Discuss. Ask a specific member what evidence led him to put in a specific item of content. Use Methods and Aids bulletin. Summarize from guide.]

2. Now we will run through the work sheet on the Disinfectant Reprocessing problem. This work sheet pointed to need for training for both supervisors and operators.

   All of us will work on <u>how the supervisors can learn to estimate needs</u>. Make out a work sheet for 5 supervisors.

[Have members work individually, then tell you what to put on blackboard. Attached sample gives possible material - do not attempt to force group to bring out this exact wording. (Step 1 of this problem is already on one board.)

Point out that, in order to sell the supervisors on the necessity of estimating needs, they must have some knowledge of the product they are working on, and therefore, all the supervisory needs in the "training in what" column have been covered. If appropriate, tie into Job Instruction Step 1.]

2 hrs. to here

[Take 10-minute intermission]

Allow 30 min. [GETTING A PLAN INTO ACTION AND CHECKING RESULTS]

1. There are no work sheets for Steps 3 and 4.

(33)

(For use with Step 2 of P.D. Method - Use Card)

What is the Specific Plan? Estimating needs for disinfectant packaging

Training for Whom? Supervisors of disinfectant packaging dept. Training for How Many? 5

What Content?	How Can It Be Done Best?	Who Will Train or Help?	When? How Long?	Where?
Use of disinfectant by Marine Corps	Explanation - pictures	Sales Manager *	Next Monday 15 minutes	
Properties of disinfectant	Demonstration	Chief chemist	15 minutes	Conference room
Estimating needs Size of contract Production capacity Disinfectant power needed	Explanation Discussion of work standards Discussion of schedules Blow-ups	General foreman	1½ hours	
		* Or a procurement officer or a veteran		

What is the Relation of this Plan to Other Current Training Plans and Programs? Training is so short - can be worked in without interference.

7-6850 P59 bs

Local conditions in your plant will determine what you must write down in these steps.

You will make written notes for these steps.

2. In connection with Step 3, we have a bulletin which may be of some help to you.

[Pass out copies of "How to Launch a Plant Training Program" and read main headings.

Discuss the following ideas with the group. Get evidence of concrete thinking from them.]

Does the training director's responsibility end when he has spotted a need and made a plan to meet it?

He still has to get acceptance and understanding, see that those who do the training are equipped, that the training actually gets started, and, of course, check the results.

[Stress the fact that the card gives definite procedure to follow in getting a plan into action.]

The training director has been working with the line organization - perhaps with top management and with lower levels of supervision.

He has been working on a production problem, he has used production records, talked with production people, when he identified the needs for training.

When he planned the content, he probably got help from the line organization and staff departments.

[Emphasize that Step 3 may be the first time that he has discussed the whole problem and his approach with someone high enough in the line organization to give authority to proceed.]

The evidence, causes, and needs which the training director located as he worked through the first step of the P.D. method give him his talking points for selling management.

In general, top managers are more interested in production facts and figures than they are in training techniques. Too much detail on methods may be confusing.

The training director must be ready to explain the plan - or help someone else - to middle management and all those who are affected.

He must be ready to arrange for the training of those who do the actual instruction. The time that this takes must be considered in making the training timetable.

The plan is not ready to "go into action" until an agreement has been reached as to who is responsible for making continuing use until the production problem has been solved.

Finally, when the plan is started, it must have management's known backing. The means may differ - meetings, announcements, letters - but this participation in the plan as a way to improve production is essential to getting action that produces results.

[Be certain that each member understands the importance of getting a plan into action.

Suggest members read the whole bulletin thoughtfully and completely after the session.]

3. The training director uses a 4-step method. His job is not finished just because the training is started - or even when training sessions are concluded.

[Refer to card.]

He must see what the results were - check them against the evidence.

Management must be informed of results.

These points check the training director's results as a plan designer.

If a plan is not getting results, he must find out why. Was the plan followed? Were the instructors competent? Did management back it? Did the need change? Has anything else happened to affect the situation?

Checking results is necessary because of the specific needs which are involved in the particular plan.

If one plan fails, it becomes harder for the training director to launch his next one. It is harder to sell management, and production people may be reluctant to spend time on what they may think is "just another kind of training."

Getting results is what the training director has virtually guaranteed to management - and also the most important thing he can do to establish his own plant reputation.

The training director must be the most severe critic of training that there is in the plant. He will be helped if management demands to be informed of results.

Even if the production organization is not expecting "to be shown," the training director still must find out just what effect the use of his plan has had on the production problem.

Sometimes events in the plant mean that a plan has to be changed - perhaps while it is in operation. An engineer can repair a bridge while the train runs over it.

Training can outlive its usefulness. Remember that, while education is for the good of the individual, training is for the good of the plant and of production.

Individual gains and personal appreciation are by-products.

If the need for the training has ended, the training director should be the first one to recognize that fact.

Occasionally the need for the training ceases abruptly - the training director should be the one to see that a plan which is not needed is chopped off.

His final check of results, of course, is:

* Is the plan helping production?

At the bottom of the card is the statement on line and staff responsibility for training results. Remember that:

* The LINE organization has the responsibility for making
* continuing use of the knowledge and skills acquired
* through training as a regular part of the operating job.

But this does not relieve the training man of responsibility, for,

* The STAFF provides technical "know-how" on techniques by
* which the line organization keeps a program in use as
* long as it is needed in order to get continuing results.

T.W.I. has prepared a bulletin on how a plant can get continuing results.

[Distribute copies.]

Let's look at the main headings now. You can read it thoroughly later.

[Discuss the bulletin as follows, enlarging where appropriate.]

There are certain fundamentals for getting continuing results.

1. Assign responsibility.
2. Get adequate coverage.
3. Provide for coaching.
4. Report results to management and give credit.

These items give a basic pattern for you to follow to get continuing results from any training plan you develop for your plant.

The item "Provide for coaching" is illustrated by five steps developed by T.W.I. for coaching in the skills of supervision.

1. Give reasons and advantages.
2. Get understanding of principles.
3. Select a problem and work it together.
4. Ask him to work out another problem alone.
5. Give credit.

2 hrs. 40 min. to here

[Amplify briefly.]

Allow 30 min.

[DRILL ON STEPS 3 AND 4 OF 4-STEP METHOD]

1. Each of you will now make notes on Steps 3 and 4 of this Disinfectant Reprocessing problem.

[Steps 1 and 2 are on board, and all members have filled-in work sheets.]

* Use your cards to outline Steps 3 and 4.

Be specific. Work individually.

[Discuss the various ways the different members planned to use Steps 3 and 4. Make it "live."

Emphasize that when the plan is discussed with management - it may be revised. You may have to go back and do more work on Step 2. You may even have to get more evidence.

If necessary, work Steps 3 and 4 of Defective Hydraulics problem.]

3 hrs. 10 min. to here

Allow 20 min.

[ASSIGNMENT FOR SECOND DAY]

1. When you go back to your own plant at the end of this section of the Institute, you will get to work using the 4-step method on a problem in your own plant.

   Before then, we want to make sure that we have clearly established the use of the method.

   * Now you know you cannot spot production problems or plan
   * training in a conference. You cannot plan training in
   * your office. You have to get into the plant.

   * But I will ask you to check your understanding of the method
   * between now and tomorrow morning by going through the four
   * steps on a practice problem.

   Suppose that, when you return to your plant, you find that your plant has suddenly been given a release on civilian production or received a new war contract; that not more than 200 workers will be involved, and that the change will happen in four weeks.

   What will this mean in your plant?

   It will mean something different in every plant.

[Go into detail as necessary.]

To a plant which receives a contract for a new war product or has to change its manufacturing procedures, this probably will mean that there will be no one in the plant who knows the new work.

To a plant which has been converted to war work, it may mean reconverting a part of the plant. But reconversion is not always simple - will your plant go back to exactly the same design as before the war? Are there skilled workers? How about supervisors?

If a plant has been built in war-time there may not be a supervisor or worker who knows how to make the new product.

Perhaps you already are on civilian production and this expansion is the result of a lifted employment ceiling to take care of new orders. Or perhaps raw materials have been scarce - now you can get more. At any rate the plant is putting 200 workers (present or new employees) on this job. How about supervisors?

[Relate this to each member's own plant as far as possible.]

Apply this to your own plant - what would this change affecting not more than 200 workers in four weeks mean in your plant?

Use actual conditions in your plant right now.

Consider a change that is possible or probable.

Plan what could be done about it in four weeks.

Restrict your plan to what affects 200 workers or less.

Work through all four steps.

There are work sheets here for Steps 1 and 2. Make definite written plans for Steps 3 and 4.

Keep it simple.

All of you are to bring a complete 4-step plan tomorrow.

Remember that in Step 1 you often spot many training needs. But you can tackle only one at a time. Take just one training need and develop the other three steps for it.

[If there are questions, clarify individually in terms of the specific plant.]

2. [Summarize on board:]

Use present conditions in your plant.

A change in product, production method, or service in your company's plant or establishment.

Your plant must be ready to meet a problem which could occur within four weeks.

Not more than 200 present or new workers will be directly involved in the change.

3.* Remember, this is still just practice - you won't do
  * overnight planning at home on a real problem.

3 hrs.
30 min.
to here 4. [Distribute blank work sheets.]

Allow 10 min.

REVIEW 4-STEP METHOD

Express satisfaction as to group attendance and participation in previous session.

Discuss rapidly the objectives of each step. Use different individuals for comment as you work through the 4-step method. Make this review snappy but thorough.

First, we must:

1. Spot a Production Problem.

We can't just say: "We need some training." It isn't even enough to go as far as: "We ought to do something about our supervisors."

We have to have a specific Why for training.

Why do we need to train?
Who are we going to train?
What is our goal?

We can get at these specific needs if we do some of these things under Step 1.

Ask one member to read aloud the first subhead under Step 1.

Get supervisors and workers to tell about their current problems.

Then and only then are we tapping one of the best sources of evidence for production problems.

Ask one member to read aloud the second subhead under Step 1.

Uncover problems by reviewing records - performance, cost, turnover, rejects, accidents.

Individual performance as well as group records should be reviewed.
Waste, scrap, and salvage records are important.

7-8220 P47 bu

[Ask a member to read third subhead under Step 1.]

Anticipate problems resulting from changes - organization, production, or policies.

We cannot afford to wait until -
new equipment is installed
new shifts report for work

We need to get in early on the training needs that come from organization, production, or other changes.

There are other ways by which you learn of training needs:

Customers may mention some.
Public opinion may point to some.

Next we:

Analyze this evidence.

In this way we can really see what action needs to be taken.

Identify training needed.

This is where we begin to work on solving the production problem through training.

Tackle one specific need at a time.

In order to do a good job we work on one specific need.

2. Develop a Specific Plan.

[Ask member to read aloud all Step 2 subheads.]

We develop a training plan by asking questions and answering them.

Who will be trained?
What content? Who can help determine?
How can it be done best?
Who should do the training?
When should it be done? How long will it take?
Where should it be done?

[Remind members of Methods and Aids bulletin.]

Making a training plan would not be too difficult if that were all we had to consider.

Anyone can find one piece of training that needs to be done and plan to meet it.

Watch for relation of this plan to other current training plans and programs.

One training plan cannot be adopted without thinking of the other training which is going on in the plant.

You may need to consider whether supervisors are already doing so much instructing that they have no time to supervise.

Perhaps conference rooms are used to capacity.

Maybe the training you have planned is not needed as badly as some other kind of training. You are really going to have to consider the relation of your plan to the overall training program.

3. Get Plan Into Action.

[Read each subhead to group.]

Stress to management evidence of need - use facts and figures.
Present the expected results.
Discuss plan - content and methods.
Submit timetable for plan.
Train those who do the training.
Secure understanding and acceptance by those affected.
Fix responsibility for continuing use.

When you take the training plan to management, some changes may result.

Maybe you cannot get as much instruction time from supervisors as you had planned.

You may have to change the methods you planned.

You must end up with a plan which management will not only approve but will support and will follow up.

The training director is a staff man, and the training plan will get its best start if he is able to:

Be sure management participates.

4. Check Results.

[Read subheads under Step 4 and comment.]

How can results be checked? Against what evidence?
What results will be looked for?
Is management being informed - how?
Is the plan being followed?
How is it being kept in use?
Are any changes necessary?
Is the plan helping production?

This card sets down the method we have been talking about - the way to meet a training need in your plant.

We will use it over and over in this Institute as we have yesterday.

[Encourage questions about meaning of Steps.]

10 min. to here — When you go back into your plants or establishments you will use it to plan training to meet the needs of your plants.

Allow 2 hrs. 50 min. — [ASSIGNED PROBLEM]

Ask one member to present the problem assigned at the last session. Follow standard procedure. Put Steps 1 and 2 on board, completely. Allow an average of 50 minutes. If a member has not followed the standard instructions, if he has not used actual present conditions, go on to another member. Tell him you will come back to him next day.

Have three members present plans during morning. Do not belabor the discussions. Take a 10-minute intermission halfway through the morning.

Stress after each presentation the necessity for being on the job when meeting a production problem through training. Stress that this is only PRACTICE.

3 hrs. to here

7-6220 P50 bu

Allow 1 hr. 30 min.

APPLY 4-STEP METHOD TO DEVELOPMENT OF INDUCTION PLAN.

Institute Conductor presents this section - the induction problem is not to be developed from group.

1. Now we're going to consider "induction." Many plants have found they need an induction plan. This has to be a program of their own.

   When we say "induction" we mean:

   Getting the new employee acquainted with the plant, or the old employee with a new department.

   Breaking the ice for the newcomer.

   Introducing "him" to the company - maybe "her" to industrial work.

   * "Job training" is not part of induction.

   * "Induction" is "learning the plant."

   * "Instruction" is "learning the job."

2. Induction starts after the employee is hired, or the old employee is transferred.

   There are many things which come before induction - and they undoubtedly affect the new employee.

   What the guard does at the gate, what happens in the employment department - these affect the new man. But they are not part of induction.

   Induction concerns employees - not visitors or applicants.

   The impression of anyone who comes to the plant is important, and it may present a training problem. But it is not induction.

7-6220 P51 bu

When does induction end? Maybe it never does, but we have to have a common understanding. Let's talk just about the first month in the plant. Each of you will have to decide on the appropriate time for your own plant - it may be less than a month or more than a month.

3. Can we work out an induction plan here?

Not a standard one for all industry.

Induction is the introduction of a person to the very place where he is going to work.

Each induction plan is different - because of the plant - because of the people.

We are going to consider some common points from induction plans.

In your own plants you may want to see whether existing problems could be met through an induction plan.

4. What will you have to consider about your own plant?

[Get discussion.]

New one: modern
poor transportation
not in full production

Converted: makeshift
crowded

Same product as usual: but have to use new materials
newcomers mix with oldtimers

Waste or safety: materials are scarce
processes introduce new hazards

Unusual security precautions: Army or Navy

5. Who are the new employees who are coming to your plant?

Older men	Negroes	Veterans
Women	Handicapped	Workers from other plants

7-6220 P52 bu

[Do not let this grow into "die-casting" - "all women are alike," etc. The emphasis here should be on change in the employee group.]

6. What are these new people like?

Not a-like.
To all of them work and work place will be:

new
strange
perhaps disturbing

When you plan induction you must have the viewpoint of the new person. Short-service people often make up a high percentage of your turnover.

What kind of impression do you want these new people to get? You want them to like the place, to want to stay, to fit in quickly.

It does matter whether they get off to the right start. Some things they could "pick up." If you learn a rule by breaking it, you remember it the next time. But is that the best way to learn?

Do you think the new person will become a good worker sooner if he knows his way around? Of course - then you have to see that he learns.

Information booklets have their place - motion pictures may help - but neither guarantees that the person learns and remembers.

Induction is not "exposure to information." It is a training job.

7. Here is a production problem from which one training director spotted a need for induction.

In this plant production was only 80% of capacity, and the orders were on the basis of full capacity. The training director was at the plant superintendent's meeting where it was discussed. He said he felt the trouble

was worn-out machinery and that he'd noticed at least one idle line in every department he walked through on his way to the meeting.

The chief engineer said the machinery wasn't worn out, that people were sore because they hadn't had any raises and were just careless.

The personnel director said there was still room for them to make more money since most of the plant was on piecework, and he thought the trouble was that new people didn't know how to do the work.

Now, do you think there's a production problem?

[Get group agreement that production problem is "Production down to 80%." Put on board.

Encourage group to see that there is no evidence - everyone saw the problem but each offered a different cause.]

8. It looks as if everyone pointed to a cause that couldn't be traced to him, doesn't it? Let's see what happened next.

It all ended with the superintendent's saying he wasn't trying to pin the blame on anyone - but why not find out, and do something about it?

The training director picked up the ball from there. He stopped in a department and pointed to an idle line and said to the foreman, "How long will it take to get the punch press fixed? Is the conveyor broken, too?"

The foreman said, "What's the matter with the punch press? It isn't down for repairs. I don't have enough people here at work today."

That gave the training director a jolt. He began to really look for the reasons behind idle machinery. He got the same story every place - not enough people at work.

Next he went into what was behind that "not enough people" remark. This is what he found out:

[Fill in evidence column as you talk - see blackboard guide.]

(For use with Step 1 of P.D. Method - Use card)

What is the Production Problem? Production down to 80%

EVIDENCE	TRAINING ACTION NEEDED		OTHER ACTION NEEDED
	Training for Whom?	Training in What?	
1,000 jobs in plant			
Never more than 950 filled			Investigation too long?
Never more than 900 at work any one day	Every absentee	Importance of work	
Turnover 5% a month plant-wide			
Turnover 20% a month, less than 3 mo. service			
Turnover 30% a mo., third shift, under 3 mos.			
Absenteeism 5% a month plant-wide	Every absentee	Importance of work	
Absenteeism 15% a month, under 3 months' service, approximately same all shifts	All new people and present short service	Importance of work	
Averages 10 months to get up to guarantee on piece rate	All new people and present short service	Work they are to do	
90% of rejects from less than 6 months' service	All new people and present short service	Work they are to do	

"TACKLE ONE SPECIFIC NEED AT A TIME"

7-6220 P55 bu

1000 jobs in plant
Never more than 950 filled
Never more than 900 at work any day
Turnover 5% a month plant-wide
Turnover 20% a month, less than 3 months' service
Turnover 30% a month, third shift, under 3 months
Absenteeism 5% a month plant-wide
Absenteeism 15% a month, under 3 months approximately same all shifts
Averages 10 months to get up to guarantee on piece rate
90% of rejects from less than 6 months' service

Now he got all this evidence from reviewing records. He decided it was time to talk to some supervisors and to some workers - some workers who were frequent absentees, and to some who were sitting in the personnel office waiting for their final checks. He got a lot more evidence:

[Add to evidence column as you talk.]

Quits

Provoked discharges
Transportation for third shift
Didn't like jobs
Didn't like supervisors
Thought work dangerous
Didn't like pay

Absenteeism

Didn't think work important
Looking for better job
Tired

When he had all this evidence, there was certainly a better basis for action than when the three staff men were shifting blame in the superintendent's meeting.

Let's follow his analysis of the evidence.

[Control discussion. Blackboard work should be similar to guide. As necessary, say "This training director decided."]

Do you notice how much more action came out of "underlying causes" than out of just plain "facts and figures"? We need both.

(For use with Step 1 of P.D. Method - Use card)

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What is the Production Problem? Production down to 80% (continued)

EVIDENCE	TRAINING ACTION NEEDED		OTHER ACTION NEEDED
	Training for Whom?	Training in What?	
Quits			
Provoked discharges			
Transportation, third shift			See bus company
Didn't like jobs	All new people and present short service	Importance of work	
Didn't like supervisors	Supervisors	How to work with people	Better supervisory selection?
Thought work dangerous	All new people and present short service	Safe practices	Check safety equipment?
Didn't like pay	All new people and present short service	Work they are to do How to figure pay	
Absenteeism			
Didn't think work important	All new people, present short service	Importance of work	Hall displays of completed product, news pictures.
Looking for better job	All new people, present short service	Work they are to do Importance of work	Investigate provoked discharges?
Tired	All new people, present short service	Work they are to do	Any better methods?

"TACKLE ONE SPECIFIC NEED AT A TIME"

* Underlying causes suggest action.
* Facts and figures give us bench-marks when we check results.

Now this training director found much action needed. He decided that the first step should be to get new employees off to a good start, and that a clean-up job on the others should be done as rapidly as possible.

Some of the other training needs concern supervisors, but his decision as to the place to start to work first is on the new employees.

9 The training director is now ready for Step 2. He called his plan "Induction" and it is for all new people, which meant 50 a month to him.

He considered the need of getting across to these new people some idea of the importance of their work. He realized that they were going to have to have better instruction in how to do the work, but that would be a separate plan.

He decided that, while they would be taught the safe way to work, something should be done about their feeling they were in danger.

There was dissatisfaction about pay - some could be traced to the fact that it took them so long to get to the place where they made more than the minimum. Could anyone be wondering about the difference between the $40 he was guaranteed and the $30 in his pay envelope if he didn't understand deductions?

In all, these people just didn't seem to think it was a good place to work. What could be done about that? There were many good things about the plant - it wouldn't hurt to point them out.

So he planned Induction. This is what he decided on.

[Distribute copies of Induction Step 2 work sheets.
Read and discuss.]

Remember that, in planning content of an induction program, we have to consider:

What new people need to know.

(For use with Step 2 of P.D. Method - Use card)

What is the Specific Plan? Induction

Training for Whom? All new employees Training for How Many? 50 a month

What Content?	How Can It Be Done Best?	Who Will Train or Help?	When? How Long?	Where?
Company production - mobile mounts for rocket guns One of newest weapons decreases Infantry casualties	Show completed product Point out what employee will do	Supervisor	Individually as soon as new employee is brought to department	Supervisor's desk
Size of company orders - not up to full production	Sketch on paper how daily lag piles up			
How people learn jobs safety-first quality-second quantity-third, but very important - Army and <u>your</u> pay	Description of job training		If necessary to keep waiting, provide some employee magazines	
How pay is figured guaranteed minimum piece rate deductions	Figure <u>with</u> him at his own rate; stress advantages of beating guarantee Summarize deductions			
Company policies interests of employees "good place to work"	Mention company standing and attitude; tell him he will like plant			
Company rules Badges No smoking	Explain 2 rules, give rule book to take home and study; invite questions		30 minutes to 1 hour depending on employee	
Company facilities Lockers - showers Lunch Package passes Driving clubs	Take him to locker Arrange worker take to lunch Does he need one now? Find out how he gets to work			

(Continued)

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INDUCTION (Continued)

What Content?	How Can It Be Done Best?	Who Will Train or Help?	When? How Long?	Where?
Detail on pay Minimum Piece rate Pay period - lag Deductions Withholding tax Social Security War bonds Union dues	Uses his daily time cards. Figure with him what his pay envelope will contain. Answer questions. Show him how he can increase his pay - on job every day, increased production.	Supervisor	Individually, day payroll is turned in, 30 minutes	Supervisor's desk
Detail on rules	Go through booklet - answer questions.	Supervisor	Individually, end of first week - 15 min.	Supervisor's desk
Official company welcome	Speech and rocket news reel.	Plant supt.	End of month, all new employees, approximately 50 in group	Auditorium
Detail on facilities Recreation, sports Employee store Employee magazine	Explanation.	Personnel director		
Detail on vacations and pensions Eligibility dates Provisions	Explanation Distribute printed plans.	Personnel director	1½ hours	

What is the Relation of this Plan to Other Current Training Plans and Programs? This can and should be undertaken for all new employees as soon as they come to work; we should catch up on all short service employees as soon as possible. Other plans can't start until people are trained to handle. Supervisors can do this now.

7-6320 P66 bu

What new people want to know.
What plant wants them to know.

How are they going to learn these things? It is not just a matter of providing information - instruction is necessary.

The supervisor is closest to the new employee. The supervisor is the one most affected when the new person falls down. He carries most of the load in this plan.

But, induction is a team job. Each person does what he can do best. The general superintendent can't stop to talk to each new person individually - he can talk to them as a group.

You will notice that this induction plan takes place at four different times. Altogether it takes less than 3 hours. Do you think it would be as effective to just put all this together on the new person's first half-day?

You don't "drench" people if you want them to learn. You put first things first. But you schedule all, so nothing will be overlooked.

This plan can be started at once. The other training needs we saw in Step 1 require that supervisors be trained in order to carry them out. But this one need not be delayed.

10. The training director has to get this plan into action. He uses the facts and figures he collected in Step 1.

He points out expected results - drop in absenteeism and turnover if:

workers feel at ease, like plant, know work is important, understand just where they stand, supervisors show interest in employees

Would it help to point out the actual dollar and cents cost of this turnover?

The boss may have some ideas of his own - he may want more evidence - he may suggest a change in the training plan. The four steps are so closely related that we sometimes have to go back to a step, then on again.

It is very important that this particular plan be launched through the line organization. It would be rather easy for a production man to think that a staff man was criticizing how he had inducted new people in the past. But if top management says "This is the way we're going to do it," that's different.

The training director wants the results of this plan checked - and he wants the operation of the plan checked.

11. I have been trying to do two things here:

Open up the subject of induction - but it is not just something to undertake unless it is an actual "training action needed."

Set a better example of the detail needed in both Step 1 and Step 2 - when you work on your own real problems, you will be doing very exhaustive work.

12. T.W.I. has a bulletin called "Introducing the New Employee to the Job." It gives examples of how two companies have approached Induction.

The forms they use, the time periods covered - both differ from what we have discussed here. But both have the new person in mind, and both consider induction as a training job.

1 hr. 30 min. to here — When you use the P.D. 4-step method, if you spot a need for Induction - remember it is training, and remember the new person.

[Take 10-minute intermission.]

Allow 2 hrs. — [ASSIGNED PROBLEMS]

[Handle three more problems - standard procedure.]

3 hrs. 40 min. to here

Allow 5 min.

SCHEDULE FOR THIRD DAY

Four remaining plans will be considered. Encourage those members to review their work sheets and notes in the light of the plans presented so far.

W.M.C. Chief of Training will outline available local public training services.

Group will have opportunity to discuss the conducting of plant meetings.

3 hrs. 45 min. to here

Distribute copies of "Introducing the New Employee to the Job."

PROGRAM DEVELOPMENT INSTITUTE

Third Day - Morning

Allow 2 hrs.

[ASSIGNED PROBLEMS]

[Handle three problems.]

[Take 10-minute intermission.]

Allow 45 min.

[WAR MANPOWER COMMISSION TRAINING SERVICES]

[W.M.C. Chief of Training outlines available public training services and answers questions.

See detailed outline in reference section.]

2 hrs. 55 min. to here

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Allow 30 min.

PLANT MEETINGS - WHAT CAN BE DONE TO IMPROVE THEM

One of the most useful training methods is the plant meeting. Staff meetings are commonly held in many plants.

Meetings to acquaint employees of change in policies, regulations, etc., are often held. Discussion meetings are held for supervisors.

These and many other meetings are occurring in plants all over the country.

A tremendous financial and time investment is made in meetings.

> Do your meetings get results? Probably some do and some don't. That's the usual experience. Some plant men say that meetings are a waste of time, that they don't get any place, that they take too long.

Let's be practical about this matter. Let's view a plant meeting as a device for aiding production.

Compare it to a machine. If a machine isn't producing up to standard, do you just throw it out? Not until you have asked a lot of questions about it.

First you determine if you really need the machine's output. If you do, you take the machine apart to find out what's wrong. Then you try to correct the trouble and get the machine back to standard production.

Why not apply this same logical approach to the meeting question? Think about your own plant.

1. Is There a Need for Meetings?

   Are there a number of important factors on which you want to keep your supervisors informed? Items like:

production schedules	company policies
product changes	organization procedures
union agreements	rules and regulations

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If so, plant meetings can do the job economically and effectively.

Of course, you can send out memorandums on these subjects; but will they fill the bill? Can a change of policy or wage rate that required hours of discussion to formulate be clearly described in one or two paragraphs?

If a supervisor misunderstands a detail, but acts on the basis of his interpretation, he may embarrass both himself and the company.

Presenting such vital material at a meeting gives the supervisors a chance to ask questions about points which are not clear to them.

On the other hand, do you like to consult with your foremen about licking a production problem, introducing a change, getting a new policy understood? Meetings can also be valuable aids in these situations.

On these latter problems, individual supervisors may help, but they will get better results if they pool their ideas. Ten or fifteen foremen working together on a production problem will arrive at far better solutions than any one of them will develop alone.

What's Wrong With Our Present Meetings?

Meetings fail for the following causes:

no reason for the meetings - rambling
just lectures or arguments
too much to cover
bad surroundings, poor atmosphere, or poor set-up
last too long - don't start and stop on time
careless leadership

Fundamentally, isn't careless leadership at the root of most of these complaints? A capable leader who takes his responsibility seriously will see that such conditions do not arise.

It seems that our whole problem boils down to helping our supervisors run better plant meetings.

3. How Can We Help Supervisors Run Better Meetings?

As in every undertaking, the key to running successful meetings is thorough preparation. If the leader has prepared himself in advance a meeting is more likely to have good results.

Much has been written on the subject of how to prepare for and run a meeting. For convenience, here are the basic points to keep in mind.

[The following can be discussed as written on the board. Abbreviate if necessary.]

Get ready	Define clearly just what you are trying to accomplish List principal points to be covered Decide what to take along: samples, models, charts, reports Find suitable place - quiet, adequate light, sufficient room Check before meeting to be sure everything is ready
Open the meeting	Start on time State clearly just what you are trying to accomplish Find out what members of the group already know about the subject - fill in gaps
Guide the discussion	Question group and individuals (what, how, why, etc.) Find out what is interfering with accomplishing the objective Use reports, models, samples to get across ideas Discuss possible solutions
Close the meeting	Make sure that there is a common understanding about "Who is going to do what, and when." Finish on time.

[Stress underlined items as key points in conducting a meeting.]

Of course, just having a 4-step plan does not insure the success of a meeting. One learns to run meetings

by running meetings. For this reason, some companies organize practice groups to permit their supervisors to improve their technique of handling meetings.

After a little practice, anyone who clearly knows the objective of his meeting, and who has a definite plan for reaching that objective, need never worry about the effectiveness of his meeting.

30 min. to here

[Erase board work.]

Allow 40 min.

[ONE MEMBER'S PLAN]

[Handle tenth member's plan. Follow standard procedure.]

1 hr. 10 min. to here

Allow 45 min.

[DESCRIPTION OF USE OF METHOD BEFORE REMAINDER OF INSTITUTE]

1. In this Institute we have been demonstrating the use of the 4-step method. We have gone as far as we can in a conference. It is up to you now.

   At the opening of the Institute we said we must locate the places or problems in our plants which need our attention first. And you'll have to go out into the plant to do this.

   You are going to do that in your own plant. Then, you will go on to use the 4-step method of meeting production problems through training.

2. Just what are you going to do when you get back to your plants? How are you going to spot production problems?

   [Go around the group asking this question of each member. Make sure each member:

   understands
   intends to use method and to return with a plan
   work on a real plan - an important one - one that can be worked on within time limits; get help from the line organization.]

[Stress differences between production problem and training problem.
Stress differences between plan and program.
Emphasize: tackle one thing at a time.
Tell Institute members you will check with each one in person or by phone - make schedule.
Plans will be presented in group
no criticism of what you decided
full discussion on how method was used.]

3. You will probably find several needs. Some of them will point to more than one kind of training.

Suppose you meet your boss and he asks you what you've gotten out of this?

a method
consideration of several kinds of training plans

You can tell him your real work will be in the plant.

After you spot a specific production problem in your plant and draft one training plan to meet a specific part of the problem, you will bring it back for the final two days of the Institute ____ and ____, beginning at ____ a.m.

Be sure to include all four steps in any plan you make.

You will have to develop your own work sheets for Steps 3 and 4.

Do not bring in a plan already in operation unless you have used the complete 4-step method and gone through the plan on that basis.

We will ask each of you to discuss your own specific training plan. In order that we can discuss it without any loss of time, will you put all four steps on large pieces of paper we can hang on the blackboard, or bring 6 or 7 copies so we can follow them?

If you do bring extra copies, they will be returned to you as of course they would not work in another plant.

[Pass out "Management and Skilled Supervision," "Improving Supervisors' Knowledge of the Work," "Keeping Supervisors Informed about Their Responsibilities," and blank work sheets.]

	If members are not familiar with "Supervisors' Five Needs," outline briefly.
1 hr. 55 min. to here	Point out that these may be helpful in working out their plans.

PROGRAM DEVELOPMENT INSTITUTE

Fourth Day - Morning

Allow 20 min.

OPENING OF SESSION

Welcome Institute members briefly.

1. Each one of you will now present his production problem - anything which interferes with production.

   And his training plan - an organized method of solving a specific part of a production problem.

   You will tell us how it fits into the training program - a combination of training plans coordinated to meet the training needs caused by a specific production problem.

2. To get the most out of this 4-step method of meeting a production problem through training, you have to be able to do four things:

   In Step 1 you are a diagnostician.
   In Step 2 you are the plan designer.
   In Step 3 you have to be a salesman.
   Then in Step 4 you are a "checker-upper."

3. These four steps are closely related - you cannot design a good plan unless you really get evidence - so Step 2 depends on Step 1. You cannot get a plan into action unless you can show that your plan - Step 2 - meets needs - Step 1.

   Therefore, Step 3 depends on Steps 1 and 2. Step 4 is a follow-up not of Step 3 alone - it means that you see whether the training action planned in Step 2 really met the problem spotted in Step 1.

20 min. to here

Allow 2 hrs. 40 min.

PRESENTATION OF MEMBERS' PLANS

Handle two members' plans - not more than one hour and a quarter each - standard procedure - take 10-minute intermission in mid-morning.

3 hrs. to here

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Allow 1 hr.

SELECTING SUPERVISORS

This section is to be presented and discussed, not developed. Get agreement on points.

1. Training alone does not solve all production problems. In fact, some other action often must precede training action.

   Managements have often found that supervisory training does not get results because of the caliber of the supervisors.

   Some plants have supervisory selection plans - some have none - some pay attention to higher level supervisors but forget that job-setters may move up the supervisory ladder.

   Good supervisors are vital to management. Good means of selecting supervisors are important to good relations with workers, supervisors, and the union.

   Characteristics of a good selection plan are:

   way to locate good men from the ranks
   definite way to measure all against the same standards
   judgment by more than one person

   Let's take a look at the supervisors whom we are going to train. Many are new.

   Where are these new supervisors coming from?

   Can't hire supervisors.
   Promoted from the ranks.

2. Does it make a difference who is picked out to become a supervisor?

   Management depends on supervisors to get the work out. Other supervisors and staff men are held up in their work if some supervisors are not doing a good job.

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Workers need and want good supervisors. Unions may criticize both poor supervisors and poor methods of choosing supervisors.

Is the training director concerned about who are picked out to become supervisors? He will be concerned in their training. Much training time is lost by training wrong people.

About everybody in the plant is interested in the quality of supervisory selection. Do you now have a selection program for supervisors in your plant?

Does it go clear down the line to job-setters, leadmen? Don't some of them move up the supervisory ladder - become foremen, etc?

Do you need a selection program? Deciding today that another supervisor is needed tomorrow doesn't give much chance for good selection.

In normal times, we knew workers pretty well - but now we do not know people well enough to make spot decisions. Will just anybody be a good supervisor?

Best operator is not necessarily a good supervisor.
Man with best personality will not necessarily be a good supervisor.
Not everybody wants to be a supervisor.
Not everybody can be a supervisor - can't stop "doing" and begin "directing."

3. How does supervisory selection tie up with the training director's job?

Quality of supervisory selection affects training program. Group judgment of supervisory prospects is better than individual selection - training director should be one of the selection group.

The training director, because of the effect on his job, may be the one to call to the attention of management the need for better supervisory selection.

When we analyze evidence in Step 1, we may spot "better supervisory selection" as "other action needed."

4. Before we start to work on what is going to be in a selection plan, we know we're going to have to have something which will be acceptable to:

   management
   present supervisors
   present workers
   union organization

   What will get management acceptance?

   A plan that:

   picks better men
   shakes good men loose from "indispensable" operating jobs
   provides objective basis for judgment

   What will supervisors support?

   way to get better subordinate supervisors
   removal of charges of favoritism

   What will the workers expect from a supervisory selection plan?

   better supervisors
   a chance to be considered for promotion by a uniform, fair basis of judgment

   What will the union demand of the plan?

   openly explained
   judge each person according to same standards

   These requirements boil down easily because they are not far apart.

5. T.W.I. was asked to help plants to find a better way to select supervisors. A method, drawn from industrial experience, was developed. It is described in detail in a bulletin we will give you.

6. The first step is to <u>get</u> <u>candidates</u>.

   [Write headings on board, and first step.]

Steps in Plan	How Can It Be Done Best?	Who Will Handle?
1. Get Candidates.		

How are we going to spot the people among our present employees who look like good people to consider for supervisory jobs?

One way certainly is to ask the present supervisors.

Explain that it will not affect their own jobs.
Emphasize their responsibility for developing men.
Mention advantage of having good subordinates.
Discuss supervisory qualities.

Do some of your supervisors hold back names of their best operators because they think they can't replace them?

Bring supervisors together in a group, and ask each one to submit the names of two or three best supervisory possibilities.

No one will want to have it seem that his own department has no good men.

You may want to explain your need for supervisors to everyone in the plant.

Let workers "nominate" themselves.
Let them nominate fellow workers.

You will need to explain the selection plan:

Make sure they understand that only a few can be promoted. But everyone will be considered.

Perhaps you will want to ask the union to make nominations.

Make sure that union members understand how the plan will operate:

help in getting nominations is welcome.
actual decision will be made by management.
any question of qualifications will be discussed with anyone concerned.

Who is going to ask for nominations - perhaps the manager would be the best person.

[Fill in Step 1.]

Selection of Supervisors

Steps in Plan	How Can It Be Done Best?	Who Will Handle?
1. Get candidates	Nominated by present supervisors Workers' nominations Union suggestions	Manager asks for nominations

7. The second step is a rough screening - the elimination of those who do not measure up against the first requirements. How do we do this?

The head of the selection committee - probably someone from the personnel department - discusses individually with each supervisor the following about each name he has presented.

Man's work record
How he gets along with other workmen
Any supervisory traits such as ability to train new men
How he conducts himself on the job
Does he make suggestions?
What special training has he had?
Is he level-headed?
Is he willing to learn?
Is he acceptable to associates and supervisors?
Can he adapt himself to change?

When the supervisor considers these points, he may withdraw some of his nominations.

Similarly, union nominations are discussed with a union representative and the union may upon consideration withdraw names.

A man who nominated himself may withdraw his own name when he considers advantages, disadvantages, and responsibilities of a supervisory job.

[Continue with blackboard work.]

2. Rough screening	Discussion of each name with person making nomination	Chairman of selection committee

8. All the remaining candidates are then considered by a group.

Group can make better decision than any individual can.

Decisions improved.
Responsibility is shared.

Who should make up the group? Who is interested?

Production department
Personnel department
Training department

One representative from each will make a good selection committee.

Group reviews all available records.

Include health and safety records as well as production and pay reports.
Use any ratings and test scores available.

If no one in group knows a man personally, an interview will be desirable.

Probably the size of the group of candidates will be considerably reduced by now.

If you have had some records - such as test scores - which give a concrete measure, and on the same basis for every person, you may have enough facts now to make a decision.

[Continue blackboard work.]

3. Consideration of all remaining candidates	Joint consideration in committee	Selection committee - production, personnel, training

9. If you do not have some standard measure for each person, some practical test of ability, you now proceed to get this kind of information.

Using the same measuring stick for all appeals to management:

It gives a way to back up "merit."
It decreases chances of favoritism.

A Worker likes it:

He has had his chance to try to make the grade.
He can be shown where he falls in a group.

Unions approve:

Favoritism is decreased.
"Merit" can be measured.

What kind of "practical test of ability" satisfies these requirements?

T.W.I. recommends something simple and practical such as an arithmetic test.

Every supervisor keeps some records.
Answers questions about computing pay.
Needs to understand simple directions.

Simple arithmetic tests are acceptable to workers and to unions, and management gets a measure of man's ability to read directions and do simple figuring.

Where do you get these tests?

Many available commercially.
T.W.I. provides sample of simple form

How do you use these tests?

Explain completely to all concerned.
Best handled in a group so all get the same story first-hand.
Give the test without a time limit, but record the time taken.

Continue with blackboard work.

4. Practical test of ability	Explained and given to all remaining candidates at once	Manager will explain

10. The selection committee is now ready to again review the records. The results on the arithmetic test are just more facts.

Should a minimum score be set?

No, there is no "passing grade." This is just a way to spot the men who are best able to understand written directions and perform simple computations.

Do not let anyone make a decision solely on the basis of a test record. It is only one in the series of facts which must be weighed.

All the facts are now in; the selection committee is ready to consider each man on the basis of:

Record and experience at the plant
Own qualities - characteristics and acceptability
Standing on a uniform test of ability

[Continue with blackboard work.]

5. Review of records	Includes personnel records and test score	Selection committee

11. The selection committee now makes its decision.

Each man must be accepted or rejected.

If the man is accepted:

He may be appointed now.
He may be put in a pre-supervisory training program.
He may become part of a supervisory reserve or pool (but do not put any man in the pool whom you would not be willing to appoint tomorrow if there were an opening - in other words, this must not become an alibi).

Each person who knew he was being considered must now be notified. Do not hedge.

6. Decision	Appoint, reject, or put in supervisory pool	Selection committee

12. Would this selection plan work in your plant? All plants are different - you would have to consider what your plant needs, what you can sell to management, and what you can operate.

Perhaps you have a standard employment test which makes a uniform measure available for any worker. Maybe in your plant you would not think it feasible to open supervisory nominations to the plant at large.

You will have to line up your own selection plan.

But remember these qualities of an effective selection program:

Participation in nominations
Group judgment
Use of uniform, objective measure

And any plan will have to be followed up.

At the end of this session I will give you a bulletin summarizing this supervisory selection plan.

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Completed board work will look like this:

Steps in Plan	How Can It Be Done Best?	Who Will Handle?
1. Get candidates	Nominated by present supervisors Workers' nominations Union suggestions	Manager asks for nominations
2. Rough screening	Discussion of each name with person making nomination	Chairman of selection committee
3. Consideration of all remaining candidates	Joint consideration in committee	Selection committee - production, personnel, training
4. Practical test of ability	Explained and given to all remaining candidates at once	Manager explains
5. Review of records	Includes personnel records and test scores	Selection committee
6. Decision	Appoint, reject, or put in supervisory pool	Selection committee

1 hr.
to here

Allow
2 hrs.
40 min.

PRESENTATION OF MEMBERS' PLANS

Handle three members' plans - average 50 minutes each - standard procedure - take 10-minute intermission in mid-afternoon.

3 hrs.
40 min.
to here

Distribute copies of "How to Select New Supervisors."

PROGRAM DEVELOPMENT INSTITUTE

Fifth Day - Morning

Allow 1 hr. 40 min.

PRESENTATION OF MEMBERS' PLANS

Handle two plans.
Use standard procedure with special stress on Step 3.

1 hr. 40 min. to here

Take 10-minute intermission.

Allow 20 min.

CHECKING RESULTS

We have referred constantly to the 4-step method. This morning we have given particular attention to Step 3. Your boss expects to hear from you - that's your lead for Step 3.

But what about Step 4? Does anyone have any doubts about that step? Do you know how to check?

Discuss.

Stress:
- Use of Step 1 evidence
- Use of existing records - keep simple
- Use of "before" and "after" figures

Remember you check production results and program design. In production results, you look for both immediate and long-term results.

2 hrs. 10 min. to here

Allow 50 min.

ONE MEMBER'S PLAN

Standard procedure. Give special emphasis to Step 4. Ask whether member has considered these steps in getting continuing results:

1. Responsibility assigned
2. Adequate coverage
3. Provision for coaching
4. Reporting of results and credit.

3 hrs. to here

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Allow 50 min. — PRESENTATION OF ONE MEMBER'S PLAN

50 min. to here — Standard procedure with special emphasis on Step 4.

Allow 10 min. — RELATION OF PLANS AND PROGRAMS

Now we're going to place a little more emphasis on one line from Step 2. "Watch for relation of this plan to other current training plans and programs."

Refer to a specific member's plan.

Can you start right away on this training plan you told us about?

When you analyzed your evidence in Step 1, you found several kinds of training action were needed.

Suppose we take another look at just why you chose the one you did to develop into a training plan right away.

Which need is the most pressing? Which is going to be the easiest to sell to management? To the line organization?

Will this training plan really accomplish something definite?

Do you have people trained to carry on this plan? Can you get them trained promptly?

Direct all questions first to the man, then to the group. Keep from "lecturing."

Poor timing can spoil the best plan. If the supervisors in a department are now attending the 10-hour Job Instruction sessions, would it be a good idea to arrange for Job Methods next week?

Or, even if it were a quite different type of training plan, should you hesitate before you suggest keeping him off the job part of each day, continuously?

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There is another angle of timing - perhaps there is no conflict as far as the people who are being trained are concerned - but how about the people who are doing the training?

Can you think of starting one plan without considering the demands being made on instructors?

On the other hand, there may be no training going on in a particular department. Is it therefore a "good time for some"? Not unless it meets current needs.

No training plan can get under way until the instructors are able to do the training and until any material and aids they need are prepared.

Likewise, physical facilities must be considered - is there conference space available? Can the training shop be used at this time?

Sometimes there is overlapping between plans. Can they be combined? At least we can see that the same person isn't scheduled for both.

Occasionally there are disagreements. If a new intensive plan for a specific technical subject is introduced, what does this do to the old, longer program which has a different approach - perhaps slightly different content?

If there is "just too much training going on," and the new plan is designed to meet an urgent need, what other plan or program can be eliminated or postponed?

The training director tackles one need at a time - but he constantly watches all the training going on in the plant for the inter-relationships.

Training can cause much confusion if it is not organized - and you might kill the whole training program - lose support from the management and from the line organization - if you do not integrate your program according to plant needs and the current operating situation.

1 hr. to here

[Take 10-minute intermission]

Allow 1 hr.

ONE MEMBER'S PLAN

Use standard procedure, stressing relation of four steps. Use every item on card, including "Line and Staff Responsibilities."

You need all the evidence:

1. to be sure you have all the facts
2. to suggest and support content
3. to sell plan
4. to check results

2 hrs. to here

Allow only time actually needed

(not more than 45 min.)

SUMMARY AND CLOSING

1. Training accomplishes best results when an operating man considers it so much a part of daily operations that he sees that it is carried on in his department.

When line supervisors have this viewpoint, one training man is able to serve a large operating department or section.

The training man provides the technical "know-how" - operating men do the training.

There are, of course, emergency situations where pressure is so great that training cannot be carried on in a production department.

In other cases possible damage to material, or product, or machine, or accidents to workers might make it unwise to do initial training on the production line.

Again, there may be common training needs - such as clerical, instrument reading, use of small tools, etc., - in more than one department which can be most economically met through centralized training.

Or, extreme noise may make a separate instruction shop more effective than training in the actual department.

In such cases training men may do the actual training. When this training is done in accordance with production needs, it is effective.

Providing the tools for meeting production problems is the training man's contribution to his plant and to the war effort.

Explain certification - when a 4-step plan is actually in operation.

2. Thank group for their participation.

   Go around the group asking each for comments ABOUT THE METHOD and its use in his own company - NOT ABOUT THE INSTITUTE or the Institute Conductor.

3. Training Within Industry wants to keep in touch with each plant, each Institute member.

   T.W.I. at all times acts as a clearing-house. Give us your good ideas so others can benefit. And we'll be able to make some others available to you.

Not more than 2 hrs. 55 min.

<u>Remember</u> the 4-step method will help you to meet a production problem if you USE ALL FOUR STEPS.

PROCEDURES FOR SETTING UP A PROGRAM DEVELOPMENT INSTITUTE

An Institute is limited to 10 members. No visitors are admitted to the Institute for informational or promotional purposes. A certain variation in the members of any one Institute is desirable. This Institute will be useful to men from small plants, large plants, new plants, and converted plants. When appropriate, one T.W.I. staff member may attend.

Selecting Institute Members

Plants are invited to send representatives. Individual training or production men are not invited. The T.W.I. representative will call on a member of the plant's top management and extend the invitation to send a representative if there is a man who is functionally responsible for in-plant training. Management is promised at this time that its training man will come back with a specific plan for his own plant - not general information.

It is not necessary that the plant have a full-time training director, but the authority and responsibility for training must have been delegated to a specific person in order for the plant to be represented. The following questions may be asked in determining the proper representative to send:

Does he have a part in deciding what training is needed in the plant?
Will he plan induction of new employees?
Is he going to plan training for instructors?
Will he be responsible for planning a Supervisory Training Program?
Is he going to have to organize an apprentice program?
Will he be the contact man dealing with outside educational agencies?

If the plant has not assigned the responsibility for training to a specific person, this may result in a request for assistance in finding a training director. One way to get a training director is to hire one. Another and better way is to take a man from the line organization who knows the plant, and through such means as this Institute, help him with the technical side of his job. When an operating man has the responsibility for training as part of his job, but not a training title, he is, of course, eligible to attend the Institute .

If a T.W.I. visit results in the appointment of a training director who comes from the outside, it will probably be best for him to get some familiarity with the plant before being enrolled in a P.D. Institute.

In the case of a very large plant, where responsibility for training is broken down by departments, an Institute for members of just one plant may be desirable. Make sure that all are training designers, not just

instructors. The top training man is asked to attend a previous standard Institute, in order that he can handle the coaching between the sections of the Institute and later follow-up.

It should not be assumed that no training is going on in a plant - this Institute is a work session for men from plants which already have training programs as well as for those which do not. It gives the experienced training man the opportunity to review his training program in the light of new pressures and the aids in training now available. It gives any training man practice in using a skill approach to meet production problems through training.

After management has designated the man to attend, the T.W.I. representative will, if possible, call on the training director and give him further information about this Institute which has the backing of his management. He should not be made to think that he has been ordered to attend. The objectives of the Institute and its time schedule should be explained.

Details of time and place should be confirmed in writing with both the management and the company representative. In-and-out attendance destroys the value for all members and is generally disturbing, so it must be understood in advance that the Institute is not a drop-in affair.

Scheduling the Institute

Five days are required for the Institute. It is desirable to schedule three consecutive days at the beginning of one week and two other consecutive days toward the end of the following week, in order to allow approximately five full days for the man to work on a plan in his own plant, and to permit the Institute Conductor to coach the members.

The P.D. program head should not attempt, normally, to handle more than one Institute per month, since he will be responsible for individual follow-up with Institute members.

The representative of the Bureau of Training should be notified in advance as to the date of the Institute in order to insure his presence at the needed point.

Supplies

Each district is responsible for preparing its own blank work sheets, and for ordering other supplies at least one month in advance.

Certification

Program Development certificates are awarded when a 4-step plan developed by the Institute member actually goes into operation. This

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should, if possible, be determined by a personal visit but, if necessary, plant management may be questioned by letter or telephone.

After the Institute is finished, the Program Development Institute Conductor will schedule his follow-up visits - to both the management and the training man. It is desirable that these calls be made no sooner than ten days after the close of the sessions and no longer than one month.

Spreading the P.D. Method

There are frequent requests for admission of more plant representatives to a P.D. Institute. Question whether these men really use all four steps - or do they just instruct? Or perhaps they are interested only in the analytical technique of Step 1. Spreading parts of the P.D. technique, if it meets a plant need, is legitimate work for the plant's P.D.-trained man.

Occasionally what is needed is understanding and acceptance of the P.D. method to the extent that the right person will be sent to the Institute and his later use of the method furthered. In such cases, the P.D. Institute Conductor should be ready to explain the P.D. approach at a management meeting.

STRATEGY OF THE INSTITUTE

Program Development is designed to give to the plant man who has been given responsibility for the training function a knowledge of a 4-step method of solving production problems through training. He will develop the skill of training design through use of the method. This is not a matter of title - a production executive who has part-time responsibility for planning training is eligible; a man who has a training title, but who is an instructor not a designer of training, is not eligible.

The Program Development Manual

The Institute Conductor's manual outlines the five days of the Institute. No part of the Program Development Institute can be omitted, and no additional material is to be added. The Institute is designed to present the 4-step method in an effective, proven way. The addition of other ideas and techniques, though in themselves of value, is confusing and keeps the members from getting a clear idea of the 4-step method in the very intensive Institute schedule. There is a great deal of blackboard work specified in the manual - no further work on the board is to be done.

The Institute

Always review the one-page summary of Purpose and Emphasis before the Institute starts - and keep it in mind throughout.

The opening of the Institute by the District Representative is important. It should never be omitted at the district office headquarters. In other locations, the Resident Representative will introduce the Institute Conductor.

Members are asked to introduce themselves - they will be brief if the Institute Conductor has set that example. There is not much participation in the morning of the first day, and this opportunity for each one to talk is desirable.

The definitions save time and misunderstanding. They are presented, not developed. If there are members from non-manufacturing companies, especial pains should be taken to clarify their organization's production.

The Cost Records problem is used to demonstrate the 4-step method. It is deliberately skeletonized to make the overall structure clear. Leading questions should be used to get some participation but Institute members are not expected to practice at this stage. The Institute Conductor "dribbles" the ball - keeps it moving, but does not give it to anyone else.

The afternoon of the first day is spent on drill designed to give the members familiarity with the detailed work of each step, and the work sheets for Steps 1 and 2. This is not practice of the method - just drill

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on techniques. It is more effective to get several answers, then explain why a particular one was chosen, than to argue with a member about why his reply was "wrong."

There should be no argument about the scantiness of these drill problems - members are not being asked to get evidence, merely to identify it. Since each item of evidence is analyzed separately, we look at this as "the part of the evidence that we have." Members should not be told to "think of their own plants" in Step 1 - just use what is here. However, in Step 2, if a member asks about available space, the Institute Conductor may say, "Use what you would find in your plant."

The work on the overnight assignment is the first real use of the method. However, emphasize that it is practice, not problem-solving. Make sure that members understand that present conditions are to be actual conditions, and that the anticipated change is one which could reasonably happen.

Induction is presented as a subject on which T.W.I. has, in its clearing-house function, collected some useful information. It is not developed as a problem. Particularly when "induction programs are offered to industry" is it important to stress: designing an induction plan is an in-plant job, operation of the induction plan is a supervisory responsibility.

Plant meetings are discussed for their use as a training method.

Training Services are outlined by the Chief of Training. T.W.I. is responsible for giving adequate advance notice and for assisting the Chief of Training in making his section of the Manual effective.

At the end of the third day, several T.W.I. bulletins are distributed - not simply because they are available (T.W.I. has other good bulletins) but because they will provide specific information.

Remind members that, in thinking of their plant's problems when they are away from the plant, they have been looking at a plant problem through a telescope. When they get back to the plant they can look at a problem through a microscope.

The members present their plans to the group in order that:

1. Their understanding of the method can have a final check.

2. They will get experience in talking about evidence of the problem, a plan to overcome the underlying causes, the results that can be expected, and the way the results can be checked.

3. The group will get conviction of broad application of the method.

The plans are not considered as something to be re-made by the group. Institute members may question - and they and the man presenting the plan can take from the discussion whatever is of value and suitable to their individual plant situations. Neither the Institute Conductor nor members should "expert" a plan.

Taking copies of each others' plans should be discouraged as it contradicts the basic P.D. philosophy of training that is tailor-made for individual specific needs.

Presentation of the plans is interspersed by a presentation in a field where T.W.I., in its clearing-house function, has gathered special information - Supervisory Selection.

P.D. Institutes for T.W.I. Staff Members

In putting on a P.D. Institute for T.W.I. staff members, it is appropriate to assign to them for overnight work at the end of the first day a problem of getting continuing use of one of the T.W.I. supervisory programs in a plant where they know actual conditions, instead of using the usual problem about the "change in four weeks."

During the Institute interim each member should be required to work on a genuine problem of his own, directly part of his T.W.I. job. He must identify his production, spot a problem, get and analyze the evidence, develop a plan, sell it to the District Representative, and check the results. He will then, of course, be eligible for certification.

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STANDARD PROCEDURE FOR HANDLING A PROBLEM AND PLAN
ACCORDING TO PROGRAM DEVELOPMENT 4-STEP METHOD

1. Ask Institute member to come to head of table and give the background for the problem he is going to describe and the plan he developed:

   Picture of the situation
   Stage where he got in on it, or
   Why he started to dig in and spotted the problem

2. Ask member "What is the production problem?"

   As necessary: ask "What is production?"
   refer to definition of production
   ask "What is interfering with production?"
   ask "What are you trying to correct, improve, or prevent?"
   ask "What is bothering the boss?"
   refer to definition of production problem

   Avoid getting: an objective - need to state problem to get evidence
   mere statement of fact - must be an interference
   training problem or his personal problem
   (get: "20% of powder has to be re-processed," rather than "to decrease re-processing," or "to save materials," "to improve use of man-power.")

   Write production problem on board.

   Ask group members if they have any questions about production problem.

3. Ask member "What evidence is there that this is a problem?"

   Sketch evidence column on board - fill in evidence.

   As necessary: say, "The production problem gives us a general statement - what supporting facts are there?"
   ask, "Why is this a problem?"
   ask, "What makes you know you have a problem?"
   ask, "What are the facts in the situation?"
   ask, "What are the underlying causes of this fact? What made this happen? Did it happen just once?"
   ask, "Does this apply to all the people (or in all departments, or on all shifts)?"
   ask, "Can any of this be put in figures?"

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Get people into evidence column.

Do not combine ideas in evidence - do not write "Supervisors and workers think job dangerous and dirty" - make four entries.

In anticipated problems, the reasons why a change is to take place are important evidence needed in designing content.

In anticipated problems it is important to include in evidence column the schedule that has to be met, any cost standards - the factual material that will be needed in Steps 3 and 4.

4. Ask member to take his P.D. card and tell how he used and what he got from:

   Get supervisors and workers to tell about their current problems
   Uncover problems by reviewing records - performance, cost, turnover, rejects, accidents
   Anticipate problems resulting from changes - organization, production, or policies

   Ask: "Does this suggest any more evidence?"

   Stress as necessary: Use all three means of getting evidence on all problems.

   Supervisors present problems - workers' opinions, review records, anticipate effect of change
   Records reveal problems - get supervisors' and workers' opinions, effect of change
   Anticipated problem - supervisors' and workers' opinions, records for similar problems or in similar plants

5. Ask group members:

   Do you have any questions about: way he used the method?
   this evidence
   underlying causes
   If you were in this man's shoes, would you want any more evidence?

6. Ask member to refer to card (or "What is next in our method?")

   Ask "How did you analyze this evidence?"
   "What necessary action did you see?"
   "Training for whom? In what? Other action?"

   Sketch column headings.

   Read first item of evidence - "Is there any training action which would correct, improve or prevent?"

Stress: Training action needed - only working on training which is necessary because the facts of the situation demand it.

Say: "We have to identify the people who need training, and decide what we want them to know or learn to do."

Write the training action under "for whom," "in what."

Ask "Is any other action needed? Not action by you, necessarily - but action you will suggest either along with training action, or perhaps before training action can be taken. But don't use this as an alibi."

As appropriate, indicate that action does not stem out of all items of evidence. We collect all possible evidence before trying to analyze it. We analyze just one item of evidence at a time, but we analyze it in terms of all the evidence available. In the defective hydraulics problem, if we had not known that the system was all right immediately after it was installed, we might have considered training for the workers who installed the hydraulic system. But the other evidence ruled that out. That training was not needed.

Some of these facts will be important bench-marks for checking results in Step 4.

Illustrate from member's own problem.

Do not say: "This is just a fact and we can't do anything about it."

Repeat analysis of evidence and identification of action with each item of evidence. Having the same phrase repeated under "Training in what" has an effective impact.

Ask member: "Now that you have analyzed your evidence, are you satisfied that you have enough evidence to develop a training plan, to stress to management the need for action, and against which you can check results?"

As appropriate, say: "You may have to re-work Step 1 several times - organize a final work sheet."

7. Refer to card, "Tackle one specific need at a time."

Stress: There is work to do between preparing a Step 1 work sheet and a Step 2 work sheet.

This line on the card is our tie-in to Step 2. Several Step 2 plans can come from one Step 1.

You identify a group of people who need exactly the same training. This may involve several needs you have noted under "Training in What."
You tackle "one specific need" - this means a suitable grouping, to meet a part of the production problem.

Emphasize: This does not mean that there can only be one training plan in operation at one time - but make your plans, one at a time.

8. Refer to card.

Ask member: "What is the name of your plan?"
"Who will be trained? How many?"

Sketch these headings on board. Fill in.

Ask: "What is the first item of content you have planned?"
"The first thing you want these people to know or learn to do?"

Stress: You have to re-work the Step 2 work sheet several times. Eventually you will put it in the order of what comes first, and next.

Refer to card. Ask, "Who can help determine content? Did you have help? Do you need help?"

Sketch content heading - fill in first item.

As appropriate, point out relation of content to underlying causes.

Refer to card - "How can it be done best?" Sketch column headings.

Ask member to tell you his plan.

As appropriate, ask group what two things must be considered in planning "How" - methods and aids. Refer to Methods and Aids bulletin. Do not ask group to suggest methods or aids.

As appropriate, remind or ask member and group about principles of good instruction - breakdowns as an aid - 4 steps of instruction - importance of practice if someone is to learn to do something.

Fill in method and any aids.

Refer to card. "Who will do the training?"

Stress: two things to watch - has to have the necessary knowledge or skill - has to be able to instruct - may have to help him on one or both - that is a separate training plan.

Stress: training is not just a technical job - who influences these people - gets them to do things.

As appropriate: Point out that man who designed the plan is not doing the instructing.

Sketch "Who" column heading and fill in.

Refer to card. Sketch "When" column.

Ask member: "When will this training start?"
"How long will it take?"
"If in groups, how many in the group?"

Ask member: "In the light of your problem, is this much time justified? Is this enough time in view of the evidence of lacks that must be corrected? Is the amount of time appropriate for the method you have chosen? Is the number in the group suitable for the way you plan the training? Can the person who will do the training give this much time? Will he be prepared to do the training on this date?"

Fill in "When" column.

Refer to card. Ask member "Where will the training take place?"

As appropriate, remind member and group to consider importance of evidence (good setting may be needed), the method of training being used (machines may be needed for practice), the person who will do the training, the length of the training (perhaps a regular production line cannot be tied up that long or interrupted that often).

Fill in "Where" column.

Repeat with member for other items of content.

If length of time is great, total the hours, ask average payroll cost, ask if this ties in with evidence of need.

When plan seems too comprehensive, ask if all the people need this much knowledge or this degree of skill.

When the Step 2 plan is the T.W.I. Job Instruction plan, for example, all columns are still filled in - what is the content, how is it put across, etc?

9. Ask member: "What entries in the 'Training in What' column in your Step 1 did you use in designing this plan?"

"How did you cover the evidence in your content?"

"What did you do about this evidence?"

"What led you to put this content in?"

Stress: Content must come from evidence, but we use principles of good instruction - we try to get people interested in work before we instruct them in how to do it.

We do not plan training in Step 1 - merely spot training needs. We do design training in Step 2.

As necessary, point out: When we are designing training, we may have to go back to Step 1 and get more evidence.

10. Ask group members to take cards and look at Step 2.

Say: "We are not designing his plan - we are interested in his use of the method."

"Do you understand how his content came from the evidence?"

"What about getting help in planning the content? The man who helps you plan the content will help you sell your plan."

"Are there any questions about the methods he plans to use? the aids? Remember the lacks he was trying to overcome - should these methods accomplish that?"

"Do you want to know why he chose the person he did to do the training?"

"Are there any questions about the time or the timing? the place?"

11. Ask member to refer to card. "What is the relation of this plan to other current training plans and programs?"

Stress: "This is the link to Step 3. In view of the evidence and your plan to solve part of the problem, are you

ready to go to management now? How will this fit in with other training? If it does not fit, is this more important?"

12. Ask member to read his written notes on Step 3.

Ask one group member: "How did he stress evidence? What facts and figures did he use?"

Point out: If you don't have evidence when you go to management, you may have to return to Step 1 and get it.

Ask another member: "What results did he say could be expected?"

Ask another member: "How did he talk about his plan? How far did he go into content and methods?"

Point out: This may mean revision of Step 2 plans.

Ask another member: "What about a timetable?"

(If member did not have a timetable, ask him whether it will be important to schedule who will be trained, by what date.)

Ask member presenting plan: "Have you made or will you need to make a Step 2 plan for the person who does the training?" (Do not review this plan, however.)

Ask another member: "How is he going to get understanding and acceptance by those affected?"

Stress: This includes people being trained, their supervisors, those who will do the training.

As appropriate, discuss T.W.I. middle management philosophy.

Ask another member: "What was done about responsibility for continuing use?"

13. Ask member to summarize management participation in this plan.

Stress: evidence from management - Step 1
planning content - Step 2
responsibility for continuing use - Step 3
participation necessary in order to get results - Step 4

Get understanding on difference between management participation and mere approval or sponsorship.

14. Ask member to read his written notes on Step 4.

Ask one group member: "How is he going to check results?"
"Against what evidence?"

Stress: "Unless we have specific evidence in Step 1, we are not in good position to plan content, to sell our plan to management, or to check results."

Ask another member: "What evidence of lacks can he refer to?"
"What improvements are expected?"

Ask another member: "How is management to be informed?"

Ask another member: "Do you understand how he will know whether the plan is being followed?"

Ask another member: "What is to be done to see that these people use what they have learned?"

Remind member presenting problem: "You will keep in touch with this to see if any changes are necessary."

Remind member that in Step 4 he both checks results and checks operation of his plan.

15. Refer to card. Stress to member that "Is the Plan Helping Production?" means "Has this eliminated the production problem or licked some of the difficulties listed under the evidence?"

COMMENTING AND DISCUSSION ARE ON USE OF THE METHOD, NOT ON THE PLAN, ITSELF. GET PARTICIPATION, ACCEPTANCE, AND AGREEMENT - BUT DO NOT "EXPERT" THE PLAN. USE AND (IF NECESSARY) CLARIFY MEMBER'S OWN WORDS. KEEP DISCUSSION GOING WHILE DOING BLACKBOARD WORK.

Allow 45 min.

WAR MANPOWER COMMISSION TRAINING SERVICES

30-minute presentation by Regional, State or Area Chief of Training followed by 15 minutes' discussion - if no W.M.C. Training Representative can attend, the P.D. Institute Conductor is responsible for the presentation of a correct, current picture of local training services.

1. The primary objective of the training agencies is to increase war production.

   There are W.M.C. training coordinators in every industrial area - their function and responsibility is to:

   provide service in accordance with local needs
   coordinate various training agencies - avoid duplication

2. Since you have spent these three days analyzing production problems and discussing their solution through training, let me take a common type of production problem and illustrate what various training agencies can do to help you solve it.

   Do you ever have any spoiled work - any scrap - any rejects - any re-work?

   What is the cause of the spoiled work?

   There may be several causes:

   Worker does not know how to do the job.
   Worker may not care about quality.
   Supervisor may be poor.
   Layout may be cause of poor work.
   Inspectors may reject acceptable work.
   Plant morale low.

Put in upper right hand corner of board, in skeleton form.

Causes of Spoilage
Worker untrained
Worker not interested
Poor supervision
Poor layout
Faulty inspection
Low morale

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Any one of these may be the cause of the spoiled work - or there may be a combination of causes.

You probably can do something about every one of these causes.

You also can get help in getting at any one of these.

3. In this city there is a W.M.C. Area Training Council made up of representatives of all the federally financed war training agencies.

Put at top center of board

Area Training Council

4. You are already familiar with Training Within Industry. The three supervisory programs are intensive and specific, designed to meet plant needs for giving to its supervisors skill in:

instructing - through the Job Instruction program
improving methods - through Job Methods
working with people - through Job Relations

They do not pretend to cover any other fields than these three skill needs of supervisors.

Add to board work

Area Training Council

Causes of Spoilage
Worker untrained
Worker not interested
Poor supervision
Poor layout
Faulty inspection
Low morale

T.W.I.
-
J.I.
J.M.
J.R.
P.D.

The fourth T.W.I. program is this Program Development Institute you are now attending.

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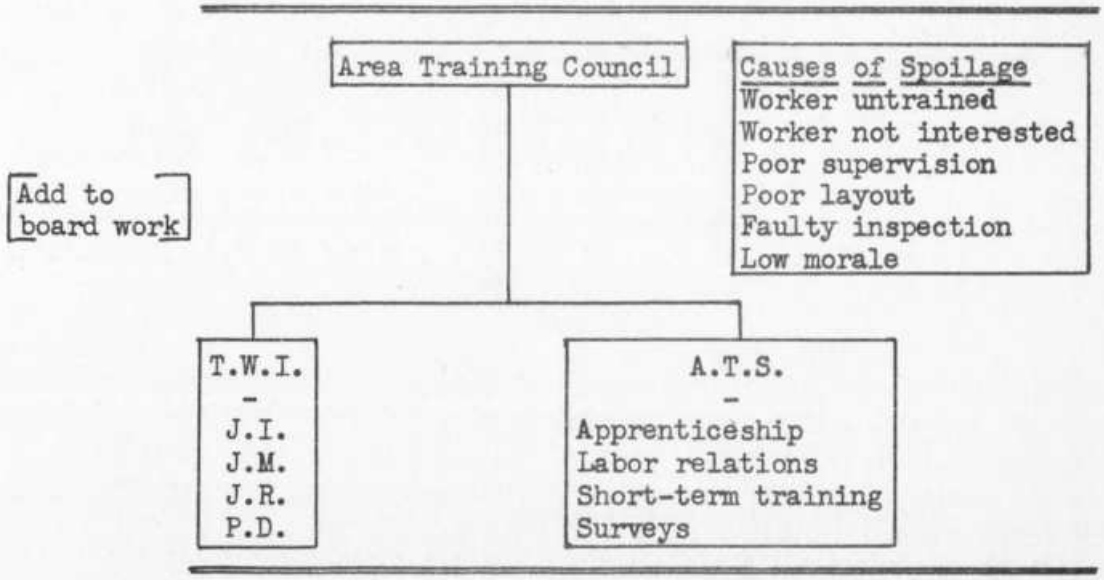
5. The Apprentice Training Service provides technical and advisory assistance, but does not do any training or provide any standard training programs. It brings together the minds of employers and labor on training methods and techniques through management labor joint training committees.

   The A.T.S. representative will work with you, in your plant, on problems connected with apprenticeship and with labor relations, as they affect training.

   A.T.S. works with both labor and management in developing sound programs involving work experience and related education in order to provide all-round, skilled workers.

   A special wartime service of A.T.S. is short-term training for specific mechanical skills.

   A.T.S. representatives will assist with plant training surveys and will give counsel on such labor relations problems as trainee or apprentice wages.



Give local examples.

6. The third of the training agencies is Vocational Training for War Production Workers. This is a national service available through the State Department of Education and the local public schools.

V.T.W.P.W. will help to prepare people to work in your plant:

those you have placed on your payroll
those who expect jobs after they have been trained.

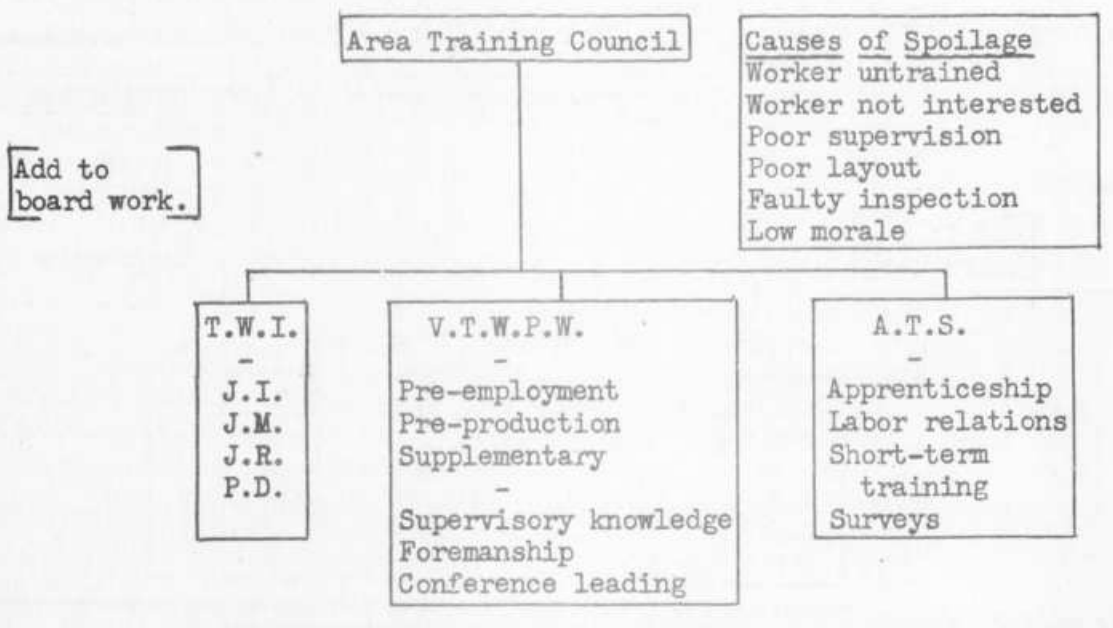
V.T.W.P.W. will also help to increase the ability of your present employees through supplementary or related instruction.

These classes can be put on:

in local trade schools
at your plant.

V.T.W.P.W. will also provide service for plant supervisors:

in specific knowledge fields
in the field of foremanship
in conference leading.



Give local examples.

7. Engineering Science and Management War Training is the fourth type of training service. This operates through universities and colleges. (These courses are being withdrawn but in many localities there will be work at the college level.)

The training courses offered by E.S.M.W.T. are designed by a representative of the college working with representatives of one or more plants.

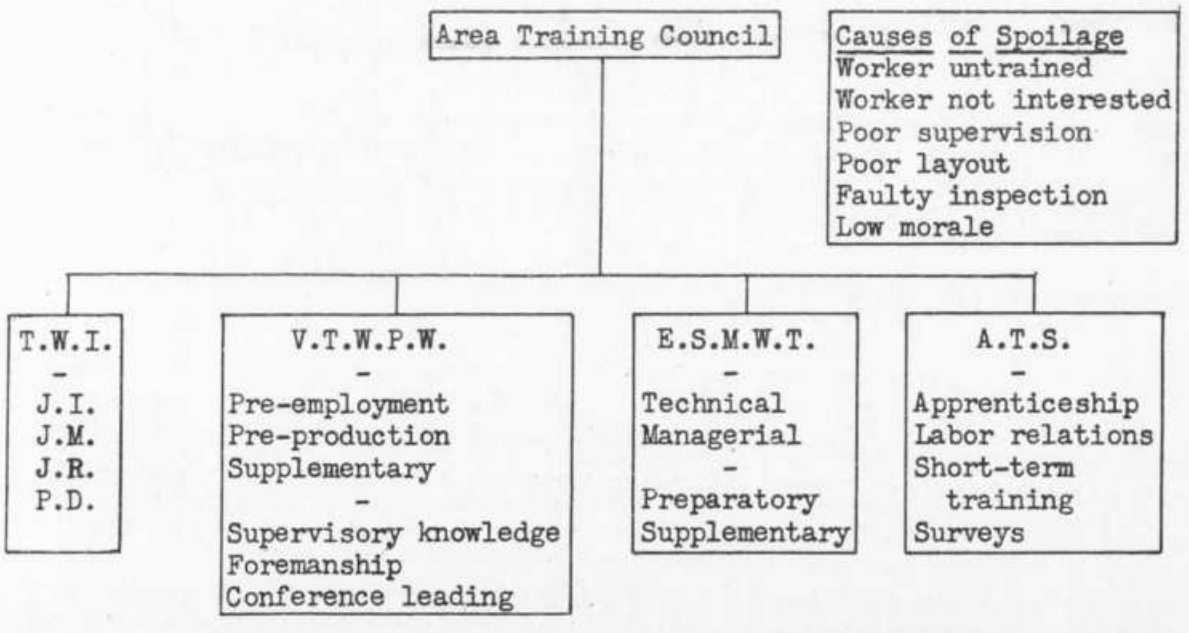
Their courses can be put on at the college or at your plant.

E.S.M.W.T. is designed to give the plant help when your plant needs people with:

preparatory training in technical fields
increased technical ability
managerial training - such as industrial relations, production control, etc.

These courses are available for people whom a plant designates and also for those who anticipate employment or promotion.

[Add to board work.]



[Give local examples.]

8. Let us go back to our example of spoiled work and see how these four training services might help you get at the six causes we listed.

[Put agency initials after each cause as discussed.]

We said that an untrained worker might be the cause of the problem. Perhaps a lathe hand who is experienced in working on copper or brass is now working on aluminum.

He simply needs instruction in how to work on the new metal.

The vocational school program - V.T.W.P.W. - can help you - in the school or in your plant.

Or T.W.I. will help you to assist your supervisors in how they can break in men on new work.

Perhaps the "untrained worker" does not mean merely a change in materials. Maybe some skilled craftsmen or highly skilled specialists are needed - A.T.S. will help you.

We mentioned poor supervision. T.W.I., E.S.M.W.T., and the vocational schools - all can give assistance in the field of supervision. That would have to be broken down further to see just what you need.

Then we come to poor layout. If you mean this in the engineering sense, E.S.M.W.T. can help you.

If you think of what the individual supervisor can do about the layout of his own work, T.W.I.'s Job Methods program may be what is needed.

We mentioned inspection. Both the vocational schools and the colleges are equipped to give courses in inspection training at various levels.

How about low morale? Supervision may be at fault. You may want to consider the Job Relations program. Perhaps an apprenticeship program would give an incentive to better work, or perhaps the labor organization in the plant does not understand what you are trying to do through training. The A.T.S. labor relations activity may help you on this.

9. You will have to determine the kind of training needed in your plant.

We believe it will help you to know the training service available without cost.

This booklet describes the national W.M.C. training program, and these other pamphlets give you local information.

Distribute "Blue Book" and list of names and addresses of training officials and other local materials. If time permits, discuss.

10. The plant training director has to spot the basic causes of production problems in his plant and determine what training should be given, to whom.

If you need bolts and screws in your plant, do you get a machine and make your own?

Not necessarily - if there is a good local supplier of bolts and screws.

And in training, you might well see what is available before you start to do the whole job yourself.

Of course you will have to:

lay down the specifications
arrange for delivery
check to see whether specifications are met.

It's just like buying the bolts and screws - we offer you a wide choice - but there isn't any bill.

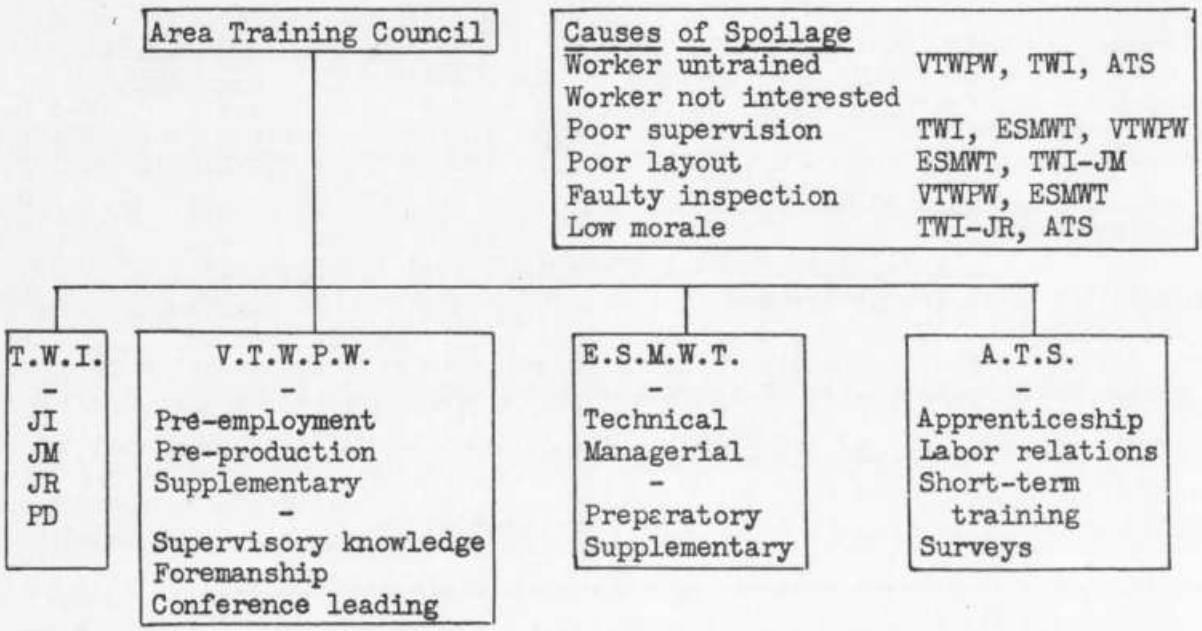
11. Congress has provided these training services. Your taxes are paying for them.

Are you getting your money's worth?

Not if you don't make your needs known.
Not if you don't take advantage of what is available.

If you are in doubt as to which training agency can serve you best - let me help you. The Area Training Council will be glad to study your problem and make recommendations.

Completed Blackboard Work



12. Are there any questions?

Fifteen minutes should be allowed for this discussion. Do not waste any time. If discussion is slow to start, give examples of training designed for specific plant needs.

Do not introduce another sample problem, but ask if any of the members have a problem of spoiled work - what are causes? Discuss training solutions, referring to blackboard outline of four services.

PLANT COACHING VISITS

Basic training in the Program Development 4-step method is given to a group in the Institute. If the Institute Conductor has given effective instruction in the first section of the Institute, it will not normally be necessary on coaching visits to give particular assistance on Steps 1 and 2. But it will be important to stress the planning of Steps 3 and 4.

On his coaching visit, the Institute Conductor checks understanding of the method, but does not attempt to pre-view the plan that will be presented in the second section of the Institute.

Ordinarily, one to two hours will be sufficient for this coaching visit. These brief visits are scheduled at the close of the first section of the Institute. This gives the Institute Conductor time enough to make a second visit to one or two members if necessary.

The Institute Conductor should not use the method <u>for</u> the plant men. Except in unusual circumstances - such as to get experience for himself or possibly to sell an unconvinced member - he should not, for example, collect evidence by talking with the supervisors. His job is just to see that the plant man knows what to do and intends to do it.

The Institute Conductor will check to see that the man is working on one plan at a time. Occasionally he will find someone working on a plan to (1) train operators in new work. This may mean that (2) supervisors have to be trained in how to instruct and, therefore, that (3) someone in the plant has to become a Job Instruction Trainer, and that (4) a plant coach must be prepared. Therefore, <u>four</u> plans are involved. Since all of this stems out of the <u>need</u> for operators to learn new work, that is the Step 2 plan the training director takes to management in Step 3. He also must have his plans on the other three Step 2 plans because he needs those when he discusses "Train those who do the training." Normally there will not be time for him to present all four plans to the group in the P.D. Institute.

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EVALUATION TECHNIQUES

(Introduce this material at any suitable time on fourth or fifth days in connection with a member's plan.)

Checking results is essential to successful operation of a training plan - it places training on an operating basis. It obtains management realization of training results and the effect of training on operations. Enthusiastic comments - superficial expressions of opinion from training directors, trainers and trainees - have often been accepted without insistence that such opinions be backed by objective or measurable results.

As management returns to a more "cost conscious" period, completion of a training plan will be followed by the preparation of a balance sheet. Management will recognize training as an operating function only when translated into production benefits. We cannot just think that these benefits result - we must show that a specific plan did produce them.

We must measure results in terms of evidence - facts, figures and percentages - rather than in opinion. Be sure to include the cost of the training in any cost figures you present. In determining the cost of a training plan, certain facts will be needed:

Trainee cost - hourly rate x man hours involved
Trainer cost - hourly rate x man hours involved
} Total man-hour cost

Your management would not approve this amount for a piece of machinery without wanting to know if it contributed to increased production, better quality product, or some direct benefits.

Checking results follows the same procedure in every situation. It involves:

Compiling evidence on loss factors before training is undertaken.
Compiling evidence on same factors after training has been given.
Comparing before and after data.

Evidence on loss factors before training helps you to make adequate provision in the content of your plan to effect it.

Evidence on these same factors after training, and comparison with previous evidence, will help to determine the need for continuing the plan, the advisability of discontinuing it, and the need for improving the plan for more satisfactory results.

You will have to eliminate or gauge the influence of other concurrent factors.

When a new condition is encountered, and there are no "before" figures, or none available from industry averages, it may be advisable to

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set up a control experiment:

Select two groups of workers as nearly alike as industrial conditions will permit.

Make these groups as nearly identical as possible with but one exception - one is to be trained and the other to receive no training.

Control the conditions under which they will work, place on like operations, etc.

Determine factors to be measured. These factors must be identical for both groups.

Keep records for both groups for a like period.

Compare these records.

Repeat with two other matched groups until a trend has been established.