

JOB INSTRUCTION

**Instructors Guide
Session 1**

SESSION 1 - INSTRUCTIONS

It is important to read this manual and have a clear understanding of the contents, prior to the start of training.

Before the session starts...

Be there 15 minutes ahead of time.

Have the following materials ready:

- Electrical cords, each approximately 24 inches long (keep out of site), or other suitable material for the initial teaching demonstration
- Plenty of “How To Instruct” cards

Set up the training site:

- So it does not look like the typical classroom
- Arrange the seats in a horseshoe
- Flipchart stand at front of room
- Have “If the employee hasn’t learned” chart in close reach and ready to hang up
- Two different colors of markers

Remember: As the instructor, it is your responsibility:

- a) To provide the right tools, equipment, and materials
- b) To set up the training site, making it ready for the learners
- c) To establish an overall warm and positive atmosphere

A NOTE TO TRAINERS

This manual contains a complete outline for these training sessions. It is your guide on what to say, what to write, techniques you should demonstrate, and even important things that you should keep in mind throughout the training activities. In a sense this outline is your “Standardized Work” for teaching Job Instruction (JI). While no single method is perfect and you will always need to use your best situational judgment I highly discourage you from deviating far from the traditional JI outline. The following pages represent over 50 years of usage and experimentation and are a collection of best practices. Please try the existing job instruction methods material and test their effectiveness before altering the contents.

The following list will help you identify the various types of visual reference icons used in the text on the following pages.

- TITLE** Each section and subsection is labeled with a title, in **CAPITALS**, for your reference.
- TEXT** The material should be presented in the order given to aid comprehension and speed progress. You should change the wording to suit the teaching situation for your area - as long as you maintain the same general meaning.
- [] Instructions inside square brackets are for you, the instructor. There are four kinds of instructions:
1. Areas where you should use your own words,
 2. Gestures that aid comprehension,
 3. Background factors for you to keep in mind, and
 4. The order of presentation.



This icon indicates to write on the flipchart.



This icon indicates to use transparencies on overhead projector.

MATERIALS

MATERIALS TO BE DISTRIBUTED

1. “How to Instruct” card
approximately
2. Name Cards

MATERIALS TO HAVE ON HAND

1. 8-10 pieces of electrical cord
24 inches long
2. Flip chart
3. “If the employee hasn’t learned” chart.

GENERAL OUTLINE

<u>Activity</u>		<u>Time Allotted</u>
Introduction		
Opening	Sub Total	10 minutes
History of TWI	Sub Total	10 minutes
Problems in Production		
Production		
Quality		
Cost Reduction		
Other Problem Areas	Sub Total	15 minutes
Five Requirements for a Leader		
Knowledge of Work		
Knowledge of Responsibilities		
Ability for Kaizen		
Leadership Ability		
Teaching Ability	Sub Total	10 minutes
The Necessity for Training	Sub Total	15 minutes
Demonstrating Ineffective Teaching Methods	Sub Total	15 minutes
Demonstrating Correct Instruction		
Fire Underwriter's Knot		
Instruction		
Demonstrations on:	Preparation	
	Presenting Instruction	
	Performance Tryout	
	Follow-up	
	Sub Total	15 minutes

The Four Step Approach

Preparation

Present

Tryout

Follow-up

Sub Total 15 minutes

Explanation of Job Instruction Card

Prepare Team Member

Present Operation

Try Out Performance

Follow-up

Sub Total 10 minutes

Conclusion

Summarize key learning points

Wrap up

Sub Total 5 minutes

Total 120 Minutes

LEARNING OBJECTIVES

After this session, the learners will be able to:

1. Verbalize how important teaching ability is to a leader;
2. Explain how ineffective teaching adversely affects Production, Quality, Safety, and Costs;
3. Distinguish what constitutes an effective and reliable teaching method.

JI METHOD

Step 1 - PREPARE Team Member

- Put team member at ease
- State the job
- Find out what team member already knows about job
- Get team member interested in learning the job
- Place team member in the correct position

Step 2 - PRESENT Operation

- Tell, show and illustrate each **MAJOR STEP** one at a time
- Tell each **MAJOR STEP AND KEY POINT**
- Explain **MAJOR STEP, KEY POINT, AND REASONS**
- Instruct clearly, completely, and patiently
- Present no more than team member can master

Step 3 - TRY OUT Performance

- Have team member do the job silently; correct errors
- Have team member explain **MAJOR STEPS**
- Have team member explain each **MAJOR STEP AND KEY POINT** as job is done again
- Have team member explain each **MAJOR STEP, KEY POINT, AND REASON**

Step 4 - FOLLOW UP

- Put team member on own
- Designate to whom to go for help and where
- Check frequently
- Encourage questions
- Give an necessary extra coaching and taper off the follow-up

JI Motto

**“IF THE EMPLOYEE HASN’T LEARNED,
THE INSTRUCTOR HASN’T TAUGHT”**

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1-1 OPENING

[Arrange opening remarks by Senior Manager on the purpose of this training].

JI Course Trainer – Self Introduction:

Thank you, _____. Once again, my name is _____. I work in the _____ department. It is my pleasure to be here to discuss job instruction with you over the next five days.

[Establish an informal atmosphere and put the group at ease].

We have quite a full schedule ahead of us, so if you miss even just one session, your learning will be affected. Please let me know if you are forced to miss any dates in advance. Also we will also start promptly at the times specified, so please don't be late.

In front of you, you will find a name card. Please make sure that your name and department are correct, then place it where I can see it.

Now, some of you may already be acquainted, but to make sure, let's introduce ourselves.

[Introduce yourself, giving your name, department, and career history.]

- *Have the learners introduce themselves in the same way, adding a brief job description.*

Explain**DEFINE “LEADER”**

In these sessions we are going to use the term “leader” a great deal. For the purpose of our discussion, we shall use the word “leader” in a general sense to refer to anyone who is in charge of people or who directs the work of others. This training is primarily aimed at Team Leaders, Team Trainers or individuals entrusted to a leadership role.

1-2 BRIEF HISTORY OF TWI

Read

Job Instruction, as we know it today, grew out of a larger program called Training Within Industry, or TWI. This program was started by the U.S. government in 1940, just before WWII, to help the defense industry increase quality and productivity. Local industrial panels of volunteer consultants were formed to standardize techniques and training methods in order to maximize the potential of every worker. The ensuing results were tremendous and subsequently adopted by many companies around the world including Toyota Motor Corporation. To this day Toyota considers JI and other TWI elements to be the fundamental building block of their supervisor training program.

TWI originally consisted of four specialized programs created for newly appointed and experienced supervisors:

1. **Job Instruction**: a method for how to train new or experienced employees who must use new or improved technologies in their jobs.

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2. **Job Methods:** designed to help line supervisors develop a critical attitude toward their work and to make method based improvements in the factory

3. **Job Relations:** training in how to promote teamwork and resolve basic worksite communication problems

Another fourth course existed to promote the basics of Program Development, and other companies later adopted a job safety course as well. Over 1.7 million Americans were trained and certified in at least one of these 4 programs. The use of JI and the other programs was a major contributing factor in increasing quality and productivity that contributed greatly to the product efforts related to WWII.

One of the more notable examples of JI's effectiveness was the role it played in increasing the number of lens grinders that were capable of making a part of precision bomb site devices in aircraft at the start of WWII. It was estimated initially that it took 5 years to master the art of lens grinding. The skill was thought to be a "black art" that could not be taught. However, due to the increased war time demands, TWI was assigned the task of training 350 competent grinders as quickly as possible. Using JI, instructors broke the job down into 20 major steps and they tested the new training method; the result was that the time to master the qualification first dropped to 6, and then 4 months.

Other companies reported decreases in accidents and absenteeism. For example, one company in Pittsburgh reported a 52 % drop in accident frequency after implementing the three "J" programs. Several intangible results

also occurred due to the TWI program, such as increased morale and better job relations.

Today's training will focus on Job Instruction. Many companies in manufacturing still use Job Instruction to improve employee competence and to ensure that their productivity meets customer demands. We will be implementing this program in our company to continue our investment in developing employee skills and improving our production capability.

(Note: Show the 3 TWI Intro slides as needed)

1-3 PROBLEMS IN PRODUCTION

As employees, we all play a major role in the manufacturing of our final product. As leaders, our ultimate goal is the production of quality products. However it is our responsibility to ensure production proceeds smoothly within our areas.

Discuss



[Write “Production” at the top of the flip chart]

Ask

Question: What are some of our goals in production?

[Ask for learners responses, looking for answers like quality, safety, and productivity, in particular]



[Write “Quality” as an initial discussion point on the flip chart.]

Read

Our company’s situation requires that we constantly strive for continuous improvement. Customers expect the highest possible quality, at the lowest possible cost, at the shortest lead time possible. If we can’t provide that then someone else eventually will. It is the job of every one of us to build quality into all products going to the customer in the most efficient manner possible. In return, the customer rewards us with continued business and growth opportunities.

Ask

Q. What are other important goals?



[Write “Cost Reduction” and “Schedule Attainment”]

[Ask for learner responses, looking for the answer “Cost Reduction and Schedule Attainment.”. No need for this step if all came out in the initial question.]

The truth is, however, that in our day-to-day operations all sorts of little problems arise that

prevent us from achieving fundamental goals such as schedule attainment, quality and cost reduction. Think how much easier it would be for us as leaders if we could just eliminate some of these problems. Every day we face factors that threaten to lower productivity, impair product quality and increase the cost of production.

Ask

Question: Now, what are some of the issues that hamper your efforts to reach our goals in production?



Write

[When a problem area is mentioned, immediately write it on the flipchart. If there are too few responses, offer hints and prompts. Try to obtain 8-10 responses covering a wide area such as those listed below. NOTE: Answers like Supplier Quality, Communication, and Leadership are likely to come up. Don't ignore them, but recognize that they are outside the scope of this class and the Job Instruction method which relates to internal matters.]

EXAMPLE

Problem Areas

- Products do not meet specifications.
- Inspection standards are not kept.
- Too many rejects and rework.
- Excessive wear on tools and equipment.
- Frequent delays and interruptions.

- Safety equipment not properly used.
- Lack of interest in the work.
- Employees' inattention.
- Too long before employee becomes fully capable.
- Employees slow to learn.
- Standardized work procedures not observed.
- Poor observance of the "Five S's."
- Consumable tools and other items wasted.
- Injuries on the job.
- Breakage of tools and equipment.
- Absenteeism

These are all the types of problems we all face every day. Now what can we do to overcome them?

1-4 FIVE REQUIREMENTS FOR A LEADER

Experience has taught us that to be effective, a leader must possess five qualities. If you have these five qualities, you are probably already well on the way to producing high-quality products and limiting costs.

The first one is knowledge of work.

Show



TP 1-1: Leadership Qualities

Ask

Question: can anyone explain what we mean by knowledge of work?

Read

The first requirement, knowledge of work, refers to the specialized or technical information required to perform the work of your area. For example information on such items as materials, machines, tools, production steps, methods and technical skills. Even if you do the same kind of work every day, you must still be on the lookout for opportunities to learn something new. Nothing remains constant forever. Eventually your department will have to produce something new or different.

The second requirement is knowledge of job responsibilities.

Show**TP 1-1: Leadership Qualities****Read**

A leader must understand the goals and objectives of the company and how they fit within the organization. That is, they must keep abreast of company policy, agreements, regulations, safety regulations and plans. These differ within the company and plants, so this knowledge must be acquired locally. To do their job well, leaders must have a clear understanding of both their responsibilities and their authority.

The third requirement is skill in kaizen.

Show**TP 1-1: Leadership Qualities****Ask**

Question: What do we mean by improvement?

Read

Knowledge is only the first step however. Leader must constantly analyze the work of their department. This includes looking for ways to combine, rearrange and simplify tasks to make better use of manpower, machines, materials, and methods at their disposal. This philosophy of continuous improvement is also called “Kaizen”.

Show**Show TP 1-1: Leadership Qualities****Ask**

Q. What do we mean by leadership ability?

Read

The leader’s most important resource is their people. Leaders must be able to work together with their people as a team to accomplish the goals of the department. Daily application of this ability will assist in keeping interpersonal relations favorable.

Show**TP 1-1: Leadership Qualities****Ask**

Question: Can anyone explain what we mean by teaching ability?

Read

One of the leader's primary duties is training those they lead. A well trained work force:

- A) Produces less scrap, less product to be reworked, and fewer rejects;
- B) Has fewer accidents, and
- C) Suffers less interruption due to damage of tools and equipment.

Read

No matter how much knowledge or skills we may possess, without this teaching ability, we are unable to pass it on. I have listed two types of knowledge and three different abilities. Few of us are born with these skills. We must acquire them through conscious effort and constant practice.

[Give examples of how effort and practice can produce good results. Point out that combining these skills will produce better methods and promote good work habits.]

It is the purpose of these five 2-hour sessions to improve your basic teaching skills so that you can apply them to your everyday jobs.

1-5 THE NECESSITY FOR TRAINING

In this next section we are going to talk about the necessity for training.

Ask

Question: When do we have to teach others?

[To impress the importance of teaching on the learners, try to get 5-8 responses.]

Write



Write responses on the flipchart.
(Optional)

Typical answers include:

- When employees first arrive
- When employee come from other departments to help out
- When employees rotate within the area to learn new skills
- When employees require additional training to boost their job skills
- When employees rotate between departments

- When human error leads to excessive defects and rework
- When there are accidents and injuries
- When a new product goes into production
- When new machinery and equipment is installed
- When there is a change of procedure or process
- When quality standards change
- When engineering changes are made.

Read

We have been able to compile quite a list. Obviously there is always a great need for training in our company. One point that I would like to bring to your attention to is that teaching is not restricted to new employees. Note how often it involves members already within your team. Changes in operations, revised standards, new work to be done, and emergencies or accidents all require that employees learn new skills.

Ask

Question: What would happen if we provide little or no training when one of these situations we just discussed presents itself?

Write

Write responses on the flipchart.

Get five specific examples so that the learners realize the importance of proper training.

Possible answers include:

- New employees do not learn their jobs.
- There will be many defects.
- There will much rework.
- There will be more accidents and injuries.
- Work would proceeds erratically instead of in accordance to standards.
- Machinery and equipment frequently breaks down.
- Production fails to achieve goals.
- Skill levels do not rise.

[Share your personal experiences with faulty teaching methods and then invite participants to share or reflect upon theirs.]

Ask

Q. How many have had similar experience?

[Take a poll or stimulate discussion.]

Read

The conclusion should be obvious: faulty teaching on the part of the leader can have serious results - lost production, lower quality, higher costs and decreased safety. It can also prove damaging to personal relationships and the atmosphere of trust.

Ask

Question: Yet, as we look at this list we have compiled, is there any problem that cannot be improved by providing proper training - or at least be reduced?

Note: Recognize of course that not all problems are solved by training. But failure to provide basic training nearly always results in serious consequences. Like the great basketball coach John Wooden once said, "Failure to plan is the same as planning to fail".

Read

Experienced employees often need training just as much as new ones do. Failing to provide any training or providing insufficient training leads to the sort of problems listed on the board. On the other hand, proper training can help reduce - or even eliminate - such problems.

In our attempts to manufacture quality products in the most efficient way possible, one of our main roles as leaders is to provide the members of our teams with the proper training. The ability to train others is therefore one of the most important requirements for any leader.

There is always someone who could improve their skill level. For this and other reasons, the leader is the person responsible for providing this training. They should consider it as one of their primary responsibilities to have teaching skills.

This program offers you an opportunity to do this, to teach you to become better teachers. While there are many types of training and even more methods used in training, we will concentrate on one particular type namely -

Show**Show TP 1-2: Job Instruction****Write****Explain**

JOB INSTRUCTION - How to teach an employee to do a particular job:

- **CORRECTLY**
- **SAFELY**
- **CONSCIENTIOUSLY**

Read

Teaching safely, correctly, and conscientiously is the basic goal of job instruction. Following this method will not only make work easier in the long run, it will also bring you closer to reducing or even eliminating many of the problems in production we have discussed.

1-6 DEMONSTRATING INEFFECTIVE TEACHING METHODS

NOTES

Ask

Question: Now, how would you describe your current methods of teaching?

Question: How about the methods others have used to teach you?

Read

Most teaching methods fall into one of four categories:

Show and Write



TP 1-3: Teaching Methods

- TELLING
- SHOWING
- ILLUSTRATING
- QUESTION & ANSWER

Explain

[Explain the transparency.]

TELLING is explaining verbally.

SHOWING is when we demonstrate how it is done.

ILLUSTRATING is explaining with written material.

QUESTION & ANSWER is asking a series of questions guiding the participant to the correct answer.

Read

By far, the most common are “TELLING” and “SHOWING”. Used together, they can prove quite effective. However, there are limits to their effectiveness when used alone. To illustrate how limited merely telling someone how to do something can be, let us consider a simple job from the electrical trade in the 1940’s - *the Fire Underwriter’s Knot*.

Demonstrate

[Walk up to the learner closest to your right hand side and ask if they know how to tie the fire underwriter’s knot. If by chance they do, ask the person sitting beside them.]

I will tell you how to tie it. Please listen carefully.

Direct

Keep the cord out of sight. Then in full detail read the steps below about how to tie the knot (13 steps).

Tying the Fire Underwriter’s Knot

1. Pick up the cord.
2. Hold in the left hand, between thumb and forefinger, about 6 inches from the end.
3. Unravel the two wires so that they form a “V”.
4. Straighten the loose ends with the thumb and forefinger of the right hand.
5. Hold the cord at the base of the “V”.
6. Take the right wire and, with the right hand, loop it clockwise so that the end passes in front of the main strand.

7. Adjust the loop until it is approximately an inch in diameter and the end protrudes about 2 inches to the left of the main strand. Hold it in place with the thumb of the left hand.
8. Grasp the left wire with the right hand.
9. Loop it counterclockwise, pulling it forward and passing it under the stub and behind the main strand.
10. Pass the end forward through the loop on the right.
11. Align both ends between the thumb and forefinger of the right hand.
12. Pull knot taut.
13. Shape the knot between the thumb and forefinger of the left hand as you pull it taut.

[Take out a length of electrical cord, hand it to the learner, and ask them to tie the knot. Go behind their left shoulder - model correct position, at the first sign of hesitation take the cord back. Show the correct method for the step the learner cannot complete. Thank the learner for their cooperation, as you walk back to the board ... say]

“Class the failure to tie the knot was not _____’s fault! It was my poor instruction!”

Show and Write



TP 1-3: Teaching Methods

~~“TELLING ALONE IS NOT ENOUGH”~~

Read

First, things sound more complicated when described with words alone. Few of us can pick just the right words to describe the process. Secondly, there are certain actions that are very difficult to express in words. Finally, you can tell too much for the person listening to be able to grasp at a single session.

A lot of instruction in plants and offices involves simply telling how. Thousands of employees are being told how to do things at this very moment. Yet how many of them really understand? This kind of instruction is the real cause of many of the problems we have listed here on the board.

Action**HANG UP POSTER & EXPLAINING THE MEANING**

“IF THE EMPLOYEE HASN’T LEARNED, THE INSTRUCTOR HASN’T TAUGHT.”

Read

Showing is another commonly used teaching method. It too can be effective - if used properly, but it too has its limitations as well.

[Turn to a learner closest to your left hand side and ask them if they know how to tie the fire underwriter’s knot. If they do, try the person beside them.]

I am going to show you how to tie the knot. Please watch carefully.

Show

[Show them how to tie the knot, yet make sure the learner stands facing you. Do not explain what you are doing; remain absolutely silent. Hand the cord to the learner and have them try.]

If they succeed, congratulate them on their power of observation and repeat the entire demonstration with another.

If the learner reverses the knot or gets confused, take back the cord. Show the correct method for the step the learner cannot complete.]

Failure to tie the knot was not _____’s fault!

Show and Write



TP 1-3: Teaching Methods

~~“SHOWING ALONE IS NOT ENOUGH.”~~

Explain

One problem, of course, is that _____ saw the knot being tied backwards. Yet, most people do not catch on even when they are shown from the correct angle. We might be able to copy the instructor’s actions perfectly, yet copying is not the same as understanding. Many motions are tough to copy. We miss the finer points because we do not know what to look for. Finally, we may be able to mimic the actions, yet we cannot take them any further. The problem is: we cannot easily translate what we see into what we do.

Action

Point To:

**IF THE EMPLOYEE HASN’T LEARNED,
THE INSTRUCTOR HASN’T TAUGHT**

Read

Repetition can increase the success rate with either of these two methods, yet it still does not make them sure and reliable. Instead, we must switch to a more reliable approach, one that is guaranteed to work every time - as long as it is properly applied.

Show and Write**TP 1-3: Teaching Methods**

~~“ILLUSTRATING ALONE IS NOT ENOUGH”~~

Explain

Illustrating is really another just method of showing. For purposes of instruction, “illustrating” means charts, diagrams, blueprints, and sketches. There are many instances when a point has been made clear by a sketch done on a napkin or on a piece of scratch paper. Illustrating is a very valuable tool that is used all of the time on almost every shop floor in the US.

One drawback is that if the individual you are showing the illustration to does not have technical knowledge equal to yours, they may not understand the point you are trying to make.

Action**Point To:**

**IF THE EMPLOYEE HASN'T LEARNED,
THE INSTRUCTOR HASN'T TAUGHT**

Show and Write**TP 1-3: Teaching Methods**

“QUESTION AND ANSWER ALONE ARE NOT ENOUGH”

Read

Asking questions as an instructing tool is useful throughout the entire instructional process if it is used properly. It can be used in preparing the learner for instruction and checking the learner understanding of the material. It can also be used in helping the learner to think through the logical steps of the job.

A word of caution in using a questioning and answering technique. Ask questions which begin with such words as “what” “whom” “why” “when” “where” or “how”, as these types of questions cannot be answered with a yes or no.

Action

Point To:

**IF THE EMPLOYEE HASN'T LEARNED,
THE INSTRUCTOR HASN'T TAUGHT**

1-7 DEMONSTRATING CORRECT METHOD

Having now highlighted several ineffective teaching methods, let me now demonstrate the much more effective basic JI method. It combines the aspects of telling, showing, and illustrating with questions and answer into a simple yet effective method. However, first I will need a volunteer.

[Find another learner who does not know how to tie the fire underwriter's knot and have them wait in their seat.]

I am now going to teach _____ how to tie this knot. I would like to remind the others that this isn't a course in knot tying. I want you to concentrate on *how* I teach, specifically - what I will say, what I do, and in what order - not on what I am teaching them. I will be asking you questions afterwards, so observe carefully.

[Call the volunteer to the front and set the scene:]

DEMONSTRATION

[Follow the four basic steps. Make sure that your demonstration is orderly and correct, that four steps are clearly defined, and the key points stand out.]

Follow the suggested dialogue outline in the appendix at the end of this session if necessary or refer to the outline below.

JOB INSTRUCTION

APPENDIX 1

FIRE UNDERWRITER'S KNOT

<u>MAJOR STEPS</u>	<u>KEY POINTS</u>	<u>REASONS</u>
1. Untwist and straighten	1.1 6 inches	1.1.1 Quality standard
2. Make right hand loop	2.1 In front of main strand	2.1.1 In order to make correct tie
3. Make left hand loop	3.1 Pull towards you	3.1.1 Put a kink in wire to make it easier to move to next motion
	3.2 under stub	3.2.1 In order to make correct tie
	3.3 behind main strand	3.3.1 In order to make correct tie
4. Put end through loop		
5. Pull taut	5.1 Ends even	5.1.1 Even tension in loops
	5.2 Knot snug	5.2.1 Correct positioning of knot

**Step 1. Demonstrating
“Preparing” the Employee:**

A. Greet member naturally. Tell them they are going to assemble lighting fixtures for the electrical shop. The first part of the job they have to learn is the fire underwriter’s knot.

B. State job name clearly: “Tying Fire Underwriter’s Knot.”

C. Ask them if they know what the fire underwriter’s knot is used for. If they don’t, show them a completed knot. (Show knot)

D. Illustrate how it functions to relieve tension on the wire connections in electrical fixtures. Stress that if they do not tie the knot properly, a fire could be started. (Show socket)

E. If convenient, have the learner on the instructor’s right, so they can now be moved to the left - just to emphasize “correct position” for this job.

Step 2. Present

“Presenting” the New Job to the Employee:

1st Demonstration:

Show and state the procedure in short and clearly defined major steps. Pause between each major step with hands down at side, one at a time. (To start say the # of Major Steps, e.g. “There are 5 Major Steps...)

2nd Demonstration:

Repeat major steps while emphasizing key points. (Say # of Key Points, “There are 2 Key Points with Major Step #1...”)

3rd Demonstration:

Repeat major steps and key points while explaining reasons behind key points.

Step 3. Performance Tryout.

1. Provide employee with a new length of wire and ask them to tie knot silently. Stop them immediately if step is done incorrectly and correct it. Make sure they follow exactly what you presented. If they become confused, then show and explain correct procedure until the incorrect movements are overcome.
2. Have the learner tie the knot again while stating each major step out loud.
3. Ask employee to tie the knot again, and explain the major steps and key points of the job.
4. Ask the employee to tie the knot one last time now explaining the major steps, the key points, and stressing the reasons why.

(It may be necessary to tie the knot more than the minimum 7 repetitions outline in the basic teaching pattern)

Step 4. Follow-Up

- A. Ask them to go ahead with the job on their own .
- B. Explain to the learner that they are required to tie the knot on 50 cords. This is a shop project.
- C. Explain that if they get stuck, they should see you. You will be *available* to help them every 15 minutes, or will designate a training helper.

D. Tell them you will return in a few minutes to see how they are getting along.

1. Check back every 15 minutes today.
2. Encourage questions.
3. Taper off to once an hour tomorrow.
4. Taper off to every 4 hours next day.

Read

_____ has now mastered this job. The method I used to teach is quite simple as you have seen. Yet underlying it are some very important concepts.

1-8 THE FOUR STEP APPROACH

Let us review this lesson and try to find out what these concepts are .

[Open with a brief discussion of what you did at each step. Do not ask the learners to take notes. If a learner is not participating because they are too busy taking notes, tell all learners to stop taking notes.]

QUESTIONS & (EXPECTED ANSWERS)

1. What did I say first? How do you think the learner felt? (Made them feel more at ease)
2. What did I do next? (Showed them the cord with the socket.)
3. What did I ask next? (Found out what the learner knows about the job.)
4. What did I do next? (Explained the function of the knot.)
5. What did I do next? (Moved them to the correct position.)
6. What did I do next? (Showed them how.)



STEP 1 WRITE “PREPARE”

- Put the learner at ease.
- Find out what the learner already knows

- State the job.
- Move learner to a position where they can see.

[Explain the chart.]

7. If I were to assign a title to this section, what would it be? Hint: What is necessary before beginning to teach? (**Prepare**)
8. How many times did I show him the job?.
9. What did I say as I showed them the first time? (Major steps)
10. What about the second time? (Major steps and key points)
11. What about the third time? (Major steps, key points, and reasons)
12. What did I ask next? (Do you have any questions?)
13. What did I do next? (Have the learner try.)
14. How does having the learner try differ from merely showing them how?
15. If I were to assign a title to this section, what would it be? (**Present**).

**STEP 2 WRITE “PRESENT”**

- First describe the operation one step at a time
- Then repeat and stress each key point
- Then repeat and stress each reason why

[Explain the chart.]

16. Next, how many times did I have the learner try? (Four)

17. What did the learner say as they attempted it first time? (Nothing)

18. What did the learner say as they tried the second time? (Major steps)

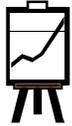
19. What did the learner say as they tried the third time? (Key points)

20. What did the learner say as they tried the fourth time? (Reasons why)

22. What did I say next?

23. If I were to assign a title to this section, what would it be? (**Try Out**)

[Explain the chart.]



STEP 3 WRITE “TRY OUT”

- First time: learner practiced silently (as instructor corrected mistakes.)
- Second time: learner gave each major step as they proceeded.
- Third time: learner listed the key points as they proceeded.
- Fourth time: learner gave the reasons for each of the key points.

24. What did I tell the learner next? (Do they have any questions)

25. What did I tell them next (who to go to for help.)

26. What did I tell the learner next? (check back every 15 minutes.)
27. What did I tell the learner next? (ask questions.)
28. What did I tell the learner next? (taper off follow-up.)
29. That ended the lesson, didn't it?
30. If I were to assign a title to this section, what would it be? (**Follow-up.**)

Explain

[Explain the chart.]



STEP 4 WRITE “Follow Up”

After prepare, present, and try out, we have “follow-up” since the employee requires additional practice before they completely master the job.

As you can see, the basic lesson plan is divided into four steps.

JOB INSTRUCTION CARDS

Distribute

I am now going to hand out one card each.

Explain

1. These cards list the steps for job instruction.
2. The aim of this session is to teach you how to use these cards.

Job Instruction Facilitators Guide- Session 1

3. Please bring them to each of the remaining four sessions.

4. After you finish this program, take them back with you and apply them to your daily work.

Discuss

COMPARING CARDS WITH FLIP CHART

Now, let's compare what we have on the cards with what we have on the chart.

Show

[Stand to the left of the chart and read the corresponding entry there.]

STEP 1 PREPARE

- Put team member at ease.
Getting the learner to relax will provide for a much more conducive environment for learning.
- State the job.
By giving the job a name you will relieve any uncertainty the learner may have about the job.
- Find out what the learner already knows about the job.
You will be creating waste if the learner already knows the job. Take the time to find out what they really know before you begin instruction.
- Get team member interested in learning the job.

Telling the employee the importance of the job is one way to make them want to master it.

- Place team member in the correct position. Making sure that they can see what you are doing is an important first step.

STEP 2 PRESENT

[Indicate the importance of the phrases by pointing to them.]

- Tell, show and illustrate each **Major Step**, one at a time.
Tell the major steps that make up the procedure. As you recite them (one by one), reinforce what you are saying by demonstrating.
- Stress each **Key Point**.
It is important to explain the key points associated with each major step that are related to Quality, Safety, and Ease of Operation.
- Explain **Reason**, instruct clearly, completely, and patiently.
Note how I showed the employee the procedure, emphasized the key points, and then explained why the key points are important.
- Remember, never present more than team member can master. It is important not to overwhelm the learner with too much at one time. Too much will only lead to confusion lack of understanding, and poor performance. Note how I asked if there was anything that he did not understand.

STEP 3 TRY OUT PERFORMANCE

- Have the team member do the job; correct errors.

This is exactly what I did in the presentation step. Have team member do the job silently.

- Have learner do job; explaining major steps.

This was the purpose of the second trial, to reinforce the steps as well as commit them to memory.

- Have learner do job; explaining key points. This was the purpose of the third trial. This aids in the relationship of major steps to important key points.

- Have learner do job; explaining reasons. The employee now has had to pass four checkpoints: the motions, the major steps, the key points, and the reasons for each of the key points.

STEP 4 FOLLOW-UP

[Compare board and card as used in Step 1.]

Read

As you can see, everything we wrote on the board is summarized here on these cards.

The “How to Instruct” cards therefore list what we call “The Four Steps to Effective Teaching”.

I hope that the demonstration and subsequent discussion, summarized both on the board and these cards, has shown you that there is a standardized pattern that can be applied to

every job instruction situation. This program's aim is to teach you this pattern and apply it effectively in your individual job situations. Over the next four sessions, you will learn more about what the entries on these cards mean.

1-9 EXPLANATION OF JOB INSTRUCTION CARD

Now, let me expand at what is written on these cards.

Explain

STEP 1 PREPARE THE TEAM MEMBER

All activities require preparation.



TP 1-5: Prepare the Team Member

1. PREPARE THE TEAM MEMBER

Read

- **Put team member at ease**
Tension is a great barrier to learning. Ask questions that are not beyond their ability to answer. Create an atmosphere in which they can speak freely and spontaneously.

- **State the job**
Giving a name to what you are about to teach helps to put aside any fears of the job.
- **Find out what team member knows**
Telling the employee things which they already know wastes time. Contrary to that, assuming too much prior knowledge can lead to a communication breakdown. To make your teaching more efficient, first determine exactly how much needs to be taught.
- **Get team member interested in learning the job.** Unless the employee wants to learn, you are wasting your time. One way to motivate them is to stress the important benefits that they derive by adding this knowledge to their skills.
- **Place team member in the correct position**

Watching you at the wrong angle can cause the employee to miss important details or to get the wrong impression. The correct position becomes important for safety reasons as well.



STEP 2 PRESENT THE OPERATION

When the employee is ready, you should begin.

Read

- **Tell, show & illustrate each major step, one at a time**
The major steps make up the job. Listing them one by one provides more manageable units as it helps communicate the idea that these steps must be done in a particular order. Sometimes you must reinforce what you are saying by demonstrating or by jotting down notes.
- **Stress each key point**
The employee must grasp the key points of the entire procedure. One way is to clarify the difference between the major steps and the key points.
- **Explain reasons**
The employee must understand why each step is performed in a specific sequence or way. It gives them a greater understanding as to the importance of the key point.
- **Instruct clearly, completely & patiently**
If your explanation is unclear or incomplete, the employee will miss the point. Do not expect the employee to get everything the first time. You must patiently go over the material again and again until they master it. This note applies to the entire second step.
- **Present no more than team member can master**
Each employee you teach will have their own capability and limits. Do not try to teach too much at once. Overloading the employee's ability to absorb new material is always counterproductive.

STEP 3 TRY OUT PERFORMANCE**3. TRY OUT PERFORMANCE****Read**

- **Have team member do the job; correct errors**
Watch the employee to see if they really understand. Instant feedback is always the most effective way to correct an employee and help speed their comprehension.
- **Have team member explain major steps**
Being able to explain what they are doing separates true comprehension from mere imitation. If the employee reaches a stumbling block, take them back to familiar territory.
- **Have team member explain each key point** as job is done again. Asking the employee to list the key points is the only true test of understanding.
- **Make sure team member understands reasons.** Keep up the practice until the employee has demonstrated to you that they have passed all four checkpoints: the motions, the major steps, the key points and the reasons for each of the key points.



4. FOLLOW-UP

Even after all this coaching, the employee is still not fully ready. They require follow up support.

Read

- **Put team member on own**
Assigning the employee responsibility for the job builds confidence and decreases their dependence on the instructor.
- **Designate whom to go to for help and where**
Having someone other than the instructor to turn to for help relieves the anxiety caused by lack of confidence. Always introduce this person and make sure that they view them as approachable.
Remember that if the employee asks the wrong person, incorrect advice can lead to lost production and injuries.
- **Check frequently**
Follow-up checks are always necessary to prevent little mistakes from becoming permanent bad habits. Correct the mistakes and be generous with your praise.

- **Encourage questions**
A beginner finds it difficult to ask questions, so they will try to find their own solutions. Do not leave the employee to their own devices. Let the person know that you are always open to questions and then keep your promise by answering such questions in a friendly manner.
- **Give any necessary extra coaching and taper off the follow-up**
Offer less help as the employee grows accustomed to their new skill. The goal, after all, is to make them fully independent as quickly as possible.

Now that we have this list, is there any item that can be skipped? For example,

Ask

Question: What would happen if we failed to get the employee interested in learning the job as specified under step 1?

Answer: At step 2, we can explain and explain, but the employee may not learn.

Ask

Question: Similarly, what if we fail to emphasize the key points as specified in step 2?

Answer: The employee will not have a complete grasp of what the job actually involves.

Read

The answer to the original question, therefore, is “no”. We cannot neglect a single step without upsetting some of the others.

Ask

Question: Now, what would happen if we tried to shift one of the sub-headings to a different heading - shifting determining the extent of the employee’s knowledge from step 1 to step 3?

Answer: If the employee already knew part of what we have just taught them, then we have wasted time on step 2. Similarly, what if we taught the correct position at step 3 instead of step 1? We will find that the employee will not learn as quickly as we might expect them to.

The order given on this card is therefore the best order for teaching a job correctly, safely and conscientiously. A teaching method in this order has proven itself both effective and reliable.

But now that we know that there is such a method, we are forced to conclude that, from now on, if an employee does not learn, it is because we have not taught them correctly. As leaders it is our responsibility to teach others. Let this then be our motto:

Action

(POINT TO)

**IF THE EMPLOYEE HASN'T LEARNED,
THE INSTRUCTOR HASN'T TAUGHT.**

1-10 CONCLUSION

That concludes our first session. The next four sessions will be devoted to “Learning By Doing” in which each of you will be given a chance to practice these new techniques in actual instruction. You will, therefore, have to be ready to teach a particular job when your turn comes up. Choose a job actually being done in your area. Remember that the time allotted for these sessions is short, so that whatever you choose should not take up more than 10-15 minutes - for all four steps. As a rough guideline, I would suggest something that takes at most 10-15 seconds during actual operations. Steer clear of puzzles and magic tricks, please. It has to be something fairly

straight-forward and readily visible to all of us here. Don't forget to bring all necessary tools and materials with you.

Once again, let me remind you to bring the Job Instruction cards and material handed out to you at each session. Study the Job Instruction card. Try to remember what is written on it and, more importantly, what each short phrase implies. I will be asking you to read from this card at each session. By the end of the program, you should be able to quote it from memory. Now, I would like two volunteers to put on teaching demonstrations at our next session. There will actually only be time for one demonstration, however, I would like a backup. If there are no volunteers, I will pick two.

Our volunteers are _____ and _____. Could you two remain afterwards, so that I can give you further directions?

That's all, so see you next session.*[Clarify time, date and location.]* Please be on time!

APPENDIX: HOW TO INSTRUCT (Fire Underwriters Knot Example)

Step 1 Prepare Team Member

- Put Team Member at Ease
 - How are you doing today? Welcome to our shop.
 - How long does it take to get to the factory from your house?
 - How are you settling into the new job?

- State the Job
 - The name of the job is the Fire Underwriter's Knot.
 - Today, I'm going to teach you how to tie this knot.
 - Show the learner an example of the finished product and explain the function of the knot.

- Find out what Team Member already knows about it
 - Have you ever seen or done this kind of job?
 - If you have seen or done this kind of job, please let me know how you did it.

- Get Team Member interested in learning the job
 - This job is a very important part of production.
 - This operation is one of the most important and basic parts of this job. Please watch carefully and learn it well.
 - Mastering this job will be of great help to our team.

- Place Team Member in the correct position
 - Come this way so you can see me do the job better.
 - This is the best place for you to see and learn. Please watch carefully from this position.

Step 2 Present Operation (Sample Case)

- I will illustrate and show you the correct method. Please watch it very carefully.
- I am going to show you this job three times explaining the major steps, key points, and reasons why some things are important.
- Then I am going to have you demonstrate the job four times for me. First silently, then stating the major steps, then the key points, and lastly with the reasons why.
- Are you ready?

- Tell, show, and illustrate each MAJOR STEP one at a time
 - I will tell, show, and illustrate one MAJOR STEP at a time, so please observe it carefully and learn by yourself. OK?
 - In this job, there are five MAJOR STEPS.
 - The first step is...
 - The second step is...
 - The third step is...
 - The fourth step is...
 - The fifth step is...

- Stress each KEY POINT
 - Now I will repeat the steps adding the key points for you associate with the key steps.
 - Repeat the steps one by one and stress the key points with each step.

- Explain REASONS WHY
 - Finally, I am going to show you the steps one more time and explain the reasons why we do it this way.
 - Repeat the steps one by one and stress the reasons why with each step

 - Do you have any questions so far?
 - Is my explanation too fast? Did you understand it?

Step 3 Try Out Performance (Sample Case)

- Have Team Member do the job; correct errors
 - Now it's your turn. Please do it by yourself. First, try it by yourself silently.
 - Don't be frightened of making a mistake just try to do it, as best you can.

- Have Team Member explain MAJOR STEPS
 - Please try to do this again now and tell me each MAJOR STEP.
 - Make sure the team member can recite the steps.

- Have Team Member explain each KEY POINT as job is done again
 - Now could you please tell me the KEY POINT associated with doing this job?

- Have Team Member explain the REASONS WHY.
 - Now could you please tell me the REASONS WHY we do it this way?

Step 4 Follow-Up (Sample Case)

- Put employee on own
 - Do you feel comfortable working on your own for a while?
 - I would like you to time some knots for me now.
 - Please plan on tying the remainder of the material here for practice.

- Check frequently
 - I'll check your job often or every 15 minutes or so to see how you are doing.
 - In the afternoon and tomorrow I will stop by every hour or so as well to see how things are going.

- Designate to whom to go for help and where
 - If you have any questions and I am not around please feel free to ask this person over here.
 - If you sense you are having trouble with your job, please stop and ask for assistance.

- Encourage Questions
 - Do you have any questions about how to proceed?
 - Ask any question you might have. The only bad questions are the ones that don't get asked!