

MANAGEMENT TRAINING COURSE CONFERENCE OUTLINE

NO. 15

ANALYZING THE PRESENT METHOD

OBJECTIVES

1. To review the 5-step method improvement procedure.
2. To study means for determining priorities on projects needing improvements.
3. To study the job breakdown and the flow diagram as means for writing up proposed method improvements.
4. Through demonstrations to study how methodical planning cuts down on wasted time and motion.

AIDS AND MATERIALS

1. Worksheets 72--76.
2. Chart No. 23.
3. Film Strip, "Stop, Look and Question, SFS 80--8" (25 min).

- - - - - TIME SCHEDULE - - - - -

Minutes

Topics

15

I. How to Select the Job Method Requiring Improvement

75

II. The Job Breakdown and Making a Method Improvement Plan

20

III. Demonstrations

- I. How to Select the Job Method Requiring Improvement (15 min.)
- Worksheet 70
- Refer the group back to Worksheet 70, and use the bottom portion of it as a basis for a discussion on the problem of selecting the job method which is to be improved. Have the conferees cite potential examples from their own place of work.
- Worksheet 72
- In taking up the problem of setting up a priority list of improvement projects distribute Worksheet 72, "A Method Improvement Priority Check List." Explain how this check list is used. Add that in many cases calculating priorities may be entirely unnecessary. A crying need for an improvement will in itself dictate that action be taken immediately. Nevertheless, the usefulness of a check list, such as the above, will be obvious to all.
- II. Making a Method Improvement Plan (75 min.)
- A. Film Strip (25 min.)
- Present the film strip, "Stop, Look and Question." This film shows how a woman supervisor helped one of her clerks who was swamped with work completely rearrange the method of doing the work. It follows the procedure of making a method improvement in a logical, effective sequence.
- Chart No. 23
- Refer to Chart No. 23 in summarizing the above film strip.
- B. The Job Breakdown (20 min.)
- Worksheet 73
- Distribute Worksheet 73, "Job Breakdown Sheet for Method Improvement," which gives the actual job breakdown from the above film strip. (Note that items 10 to 14 are omitted on the breakdown as in the film. Repetitions take place here.) Have the group weigh the importance and indispensability of making a job breakdown as one of the steps in improving a job method. Also have them note its similarities: and differences from the breakdown for job instruction.
- C. Steps 3 and 4 (15 min.)
- Using the same worksheet show how Step 3, "Question Every Detail," and Step 4, "Develop an Improved Method," are worked out. Have other examples ready to cite in order to emphasize the importance of these steps.

Worksheet 74	Distribute Worksheet 74, a blank "Job Break-down Sheet for Method Improvement," and encourage the conferees to come to the training office to get as many copies as they need in working out method improvements in their own units.
D. The Flow Diagram	Distribute Worksheet 75, "Flow Diagram of a Voucher." To some of the conferees the example here no doubt looks like a highly exaggerated case. Point out the fact that this is a case study from an actual situation--both before and after. Also point out that many unreasonable and even some absurd situations will be brought to light by drawing up flow diagrams.
Worksheet 75	
(90 min. to here)	Show how the flow diagram, also, can be used in taking up Steps 3 and 4.
III. Demonstration (20 min.)	Distribute Worksheet 76, "Room Inspection Report." Ask for one conferee to volunteer to make an inspection of the classroom using this form. While the inspection is going on, all the rest of the group are to make a rough flow diagram of the inspection.
Worksheet 76	
Assignment	Announce that the assignment which each conferee must submit at the beginning of the next conferee is a plan for an improved method of carrying out the room inspection required in Worksheet 76.
(110 min. to here)	

METHOD IMPROVEMENT PRIORITY
CHECK SHEET

Prepared by Higashi, Foreman, Factory 1Date 12 Jun '52Reviewed by Kuroda, Factory Chief

Equipment or Operation	PART A						PART B				FINAL
	Frequency	Skill	Tolerance	Idle Time	Fatigue	Total Score	Hazardous-ness	Responsibility	Cost of Improvement	Total Score	
A	1	1	1	1	1	3	1	1	1	1	1
	2	(2)	2	(2)	2	2	(2)	2	(2)	2	3
	3	3	3	3	3	0	3	3	3	0	
B	1	(1)	1	(1)	1	2	(1)	1	1	1	1
	2	2	(2)	2	(2)	3	2	(2)	(2)	2	2
	3	3	3	3	3	0	3	3	3	0	
C	1	1	1	(1)	1	1	(1)	1	1	2	1
	2	(2)	2	2	(2)	3	2	2	2	0	
	3	3	(3)	3	3	1	3	3	(3)	1	
D	1	1	(1)	1	1	1	1	1	(1)	1	1
	2	(2)	2	2	(2)	3	(2)	(2)	2	2	2
	3	3	3	(3)	3	1	3	3	3	0	4

Part A

1. Frequency

Indicate 1, 2 or 3 depending on how often a certain motion turns up in the course of operation. 1 represents the highest frequency.

2. Skill

If the operation is complicated and confusing, and requires special skill and expertness, indicate 1, 2 or 3 depending on the amount of skill as required. 1 represents the greatest amount of skill.

3. Tolerance

This is a test of the quality of the finished product in accordance with specifications. If the tolerance is so narrow that unsatisfactory products are yielded in large quantity indicate with 1.

4. Idle Time

Check the idle time of the operator, machine and waiting time for material and indicate 1 for a process with the largest amount of idle time.

5. Fatigue

If the operation itself is complex and brings on physical and mental fatigue, indicate with 1. Calculate the total score for Part A, and do likewise for Part B.

Part B

1. Hazardousness

No matter how low the score may be in Part A for a given operation, if the accident rate is high or the hazard is great,

that operation should be given a high priority among projects to be improved. Profits should not be sought at the risk of danger to workers.

2. Essentiality

The operation should also be checked to determine the relative essentiality of the particular operation to the company as a whole. For example, the by-products of the company should not be emphasized over and above the chief products.

3. Cost of Improvement

Business-men are apt to consider profit against expense in improving job methods. Profit should, however, be considered last. It may cost five hundred thousand yen to accomplish the improvement, but in five years the cost may be recovered, and from the sixth year an annual profit of one hundred thousand yen be accrued. Job method improvement should be made from the viewpoint of hazardousness and essentiality, and immediate profits should not be expected of it. Safety improvement may cost one million yen and yet take a long time before the expense is refunded.

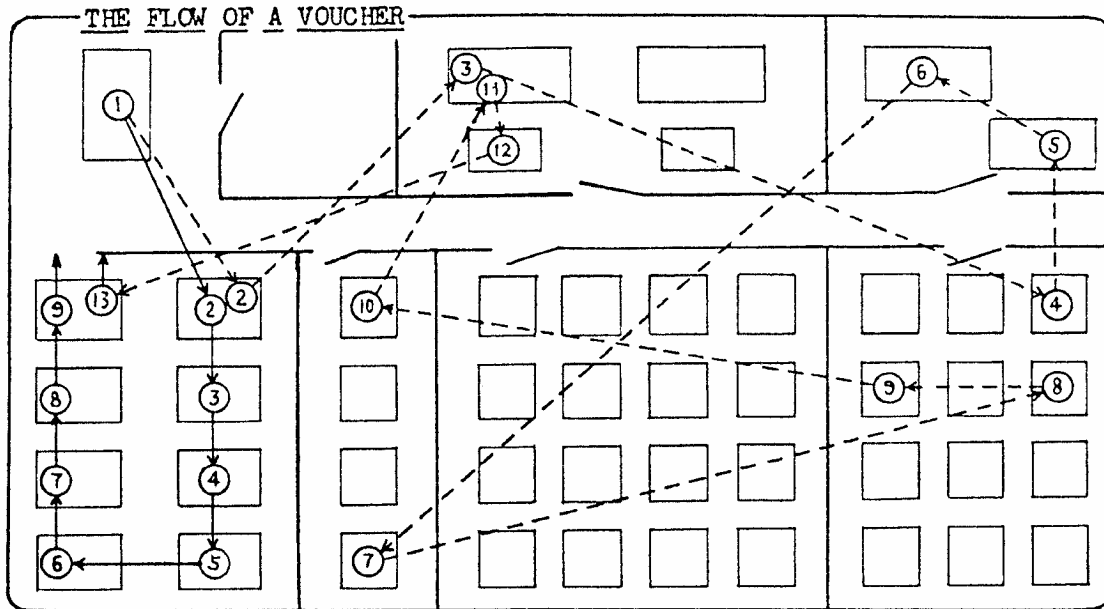
You may have an improvement which will cost one million yen and take ten years before profits from it are realized. On the other hand another improvement of a less essential phase may bring about more immediate and larger profits. From the long-range view of the future development of the company, the improvement with higher essentiality and less profit will probably be selected.

In brief, the score in Part B should be given the primary consideration with the score in Part A being added to form the final decision.

JOB BREAKDOWN SHEET FOR METHOD IMPROVEMENT

Job: _____ Date: 12 June
 Operation: Classification of correspondence Dept: Message Center
 Operator's Name: Miss G Supervisor's Name: _____

STEPS IN THE PRESENT PROPOSED METHOD	REMARKS
1. Take several pieces of correspondence from "IN" tray.	Basket is outside convenient work area.
2. Place material on desk in front of operator.	
3. Read top file to determine subject matter.	
4. Pick up and open classification manual.	Picking up manual each time seems unnecessary.
5. Indicate the subject designation.	
6. Close the classification manual.	
7. Pick up black pencil.	
8. Write classification designation in upper left corner of file copies.	
9. Lay down black pencil.	
15. Pick up red pencil.	Are two colors necessary? Use fountain pen.
16. Make a tally mark on calendar pad.	Consider occasional check.



There is a principle of highway engineering which says that roads should be built with the idea of eliminating the necessity for cars to cross lanes of traffic. There is a principle of industrial efficiency which eliminates criss-cross flow of production. The chart on this sheet shows that in the flow of a voucher, from its beginning to its completion, it stopped at 13 stations. It crossed and recrossed 5 times. It is important in analyzing procedures and the routes of production, that number of times production back-tracks or recrosses is discovered and then eliminated. A simple way to accomplish such an analysis is to make a floor layout of the office, the plant, or the shop.

If some material, engine part, some piece of correspondence, or some form is followed completely through the route it takes, and lines indicating the stations or the places to which the item went and the route it traveled are placed on a layout, production flow can be seen at a glance.

By studying the lines on the chart and by making an analysis of what happened at each of the stopping places, it is usually possible to eliminate or to combine the work of several of the stations.

It is often possible to rearrange the necessary work station in close proximity to each other.

Refer again to the diagram and note that the following improvements were made:

1. The work went to only 9 instead of 13 stations. It was found that only new accounts needed to go to Stations 3 and 6; and return to 3 (eleventh stop).

2. The work accomplished by 8 and 9 was combined and the work accomplished by 5 and 12 was combined. This made a fulltime job for 7 and 5 in the "after" arrangement.

3. The actual distance traveled by the voucher was cut down from 330 feet to 70 feet.

4. The time on regular vouchers was reduced from 2 days to 2 hours.

ROOM INSPECTION REPORT

Bldg. No. _____

Date Inspected _____

Room No. _____

Inspector _____

ITEMS		CONDITION			
		PERFECT	TO BE REPAIRED	TO BE REPLACED	REMARKS
W I N D O W	Window-pane				
	Frame				
	Door Opening				
	Hinges				
	Others				
L I G H T	Shade				
	Switch				
	Cord				
	Others				
D O O R	Knob				
	Door Opening				
	Glass				
	Lock				
	Others				
F L O O R	Cracks				
	Evenness				
	Firmness				
	Others				
C E I L I N G	Cracks				
	Spots, Leaks				
	Others				

Conference 15, Worksheet 76

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