

METHOD STUDY

Procedure

STEP ONE: SELECT THE JOB

- Economic considerations
 - Key profit generating
 - Bottlenecks
 - Operations involving repetitive work using great deal of labour
 - Movements of materials over long distance
- Technical or technological considerations
- Human considerations

STEP TWO: RECORD FACTS BY BREAKING DOWN JOB INTO SUB-JOBS

- Determine the sequence of operations
- Note down all snags and difficulties and suggestions during interview and observation.
- Get all possible information from informal records
- Information needed:
 - the object of the operation
 - the means
 - the place, time and date
 - the volume and frequency

Recording techniques :

- In narrative form
- Flow process charts
- Diagramming – layouts, models
- Pre-prepared forms

Method Study Charts

A. CHARTS	<i>Indicating process sequence</i> <ul style="list-style-type: none">■ Outline process chart■ Flow process chart – Worker, material or equipment type
B. CHARTS	<i>Using a TIME SCALE</i> <ul style="list-style-type: none">■ Multiple activity chart■ Simo chart

Method Study diagrams

C. DIAGRAMS

Indicating MOVEMENT

- Flow diagram
- String diagram
- Cyclegraph
- Chronocyclegraph
- Travel chart

STEP THREE: EXAMINE CRITICALLY

- The questioning techniques is the means by which each activity being subjected in turn to a systematic and progressive series of question
- Two categories of activities:
 - Something is actually happening
 - Those in which not being touched

Continued

MEANS Who else might do it?
 Who should do it?

PERSON How else might it be done?
 How should it be done?

With view of

- ELIMINATING
- COMBINING
- REARRANGING
- SIMPLIFYING

Questioning sequence

PURPOSE For which

PLACE At which

SEQUENCE In which

PERSON By whom

MEANS By which



The activities
are
undertaken

Primary questions

PURPOSE	What is actually done Why is the activity necessary?	Eliminate unnecessary parts of the job
MEANS	How is it being done? Why is it being done in that particular way?	Simplify the operation

Continued

PLACE Where is it being done?
Why is it done at that particular place?

SEQUENCE When is it done?
Why is it done at that particular time?

PERSON Who is doing it?
Why is it done by that particular person?

Combine or
rearrange
wherever
possible or

STEP FOUR: DEVELOP

- Eliminate all unnecessary details
- Combine details when practical
- Rearrange to get better sequence
- Simplify all complex details
- Consider any possible new operation
- Design necessary forms and records needed
- Eliminate unnecessary movement of paper by clerks and aim for even work flow.

STEP FOUR: CONT'D

- **Check for new difficulties possible when tied up with related procedures**
- **Consider treatment of exceptions**
- **Consider the alternative mechanical means**
- **Check whether the result would fulfill the purposes of the study**
- **Methods must be simple and flexible**

Secondary questions

PURPOSE **What else might be done?**
What should be done?

PLACE **Where else might be**
done?
Where should it be done?

SEQUENCE **When it might be done?**
When should it be done?

STEP FOUR: CONT'D

- **What should be done?**
- **Where should be done?**
- **When should be done?**
- **Who should do it?**
- **How should it be done?**

OSBORN'S CHECKLIST

- **Borrow and idea from something similar**
 - **Ideas are formed by combining. See if ideas used elsewhere can be adapted to your improvement project**
- **Use it another way**
 - **Is it any other way to use it while keeping the current setup?**
 - **Can anything else be produced?**

Continued

- **Change or replace it**
 - **Change the shape, colour, sound, smell, movement, location, orientation, power source**
 - **Rotate it**
 - **Remove something that's there**
 - **Add what not there**

Continued

- **Expand it**

Add something; spend more time, increase the repetition; make it stronger, longer, or thicker; add some other value; double it; increase it; exaggerate it

- **Reduce it**

Remove something; make it smaller or stronger; divide it; reduce it; lighten it

Continued

- **Use alternatives**

Use someone or something else. Use other elements; ingredients materials, methods, locations, approaches or tone of voice

- **Replace it**

Use different elements or ingredients, dies, layout, sequence

STEP FIVE: SELECT BEST ALTERNATIVE AND DEFINE

- **Consider broad cost benefit**
- **Include non tangible**
- **Use a combination of scoring and weighting**
- **Rank alternatives**

Selection matrix

	Weight	Score			Options		
		A	B	C	A	B	C
Cost reduction	4	1	2	5	4	8	20
Labour flexibility	2	4	3	5	8	6	10
Increased output	1	4	3	5	4	3	5
Total					16	17	35

Idea Evaluation Factors

Benefits to actual task	1. Tangible benefits 2. Intangible benefits
Feasibility	Time and resources to implement
Adaptability	Whether can be used in other workplaces or processes
Continuity	Long lasting or transitory

DEFINE SELECTED ALTERNATIVE

Once selected should be defined as written SOP

- **For future reference, training**
- **To explain to management**
- **Basis for time studies**
- **Contents: include tools and equipments used and general operating conditions, diagram of workplace layout**

STEP SIX: INSTALL

- **Sell the proposal to gain support**
- **Gaining acceptance of the change by management, supervisor, operator and union**
- **Preparing to make changes**
- **Controlling the change over**
- **Draw up installation plans keeping in mind safety, quality, quantity and cost**
- **Do not forget arrangement for training.**

STEP SEVEN: MAINTAIN

- **Introduce control procedures**
- **Standardize**

Thank you

Q & A

