

Work Study

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Operations Management derived from Scientific Management ~ FW Taylor (1947)

Work Study : *the systematic examination of activities in order to improve the effective use of human & other resources* (British Standards). Had a very bad press / image problem with Taylorism. 'Bad old days' ; 'Us & Them'. Work Study is not an **assurance** of **Quality**. However, the **basic tools and techniques**, together with the mentality behind **modern work study** methods, can serve as part of Quality Drive (**TQM**). Because of the need to **monitor improvements & quantify work** on a **continuous basis**. Made up of :

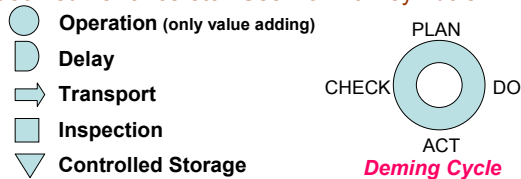
Method Study - *The best way of doing a job*
'systematic & critical examination of the way of doing things in order to make improvements'

S R E D I M

Select work to be studied

Record all relevant facts:

Video / surveillance etc. Use workflow symbols:



Examine the facts critically:

Use Ishikawa (fishbone) diagram / cause & effect
4Ms: Manpower | Machinery | Materials | Method

Develop optimum alternatives:

Relationship Chart

Install the new method as standard (*training reqd*)

Maintain by regular checks (*training reqd*)

Work Measurement – *How long jobs should take*
'application of techniques designed to measure the time for a qualified worker to carry out defined task'

Measuring the time tasks take has direct impact on :

Costs / Delivery Speed / Delivery Reliability

Need information to work out key **ratios**:

Productivity = OUTPUT / INPUT

Efficiency = ACTUAL OUTPUT / EXPECTED OUTPUT

Plant Productivity = OUTPUT / MACHINE HOURS

Can be applied to:

Capacity planning ; scheduling ; more accurate costing ; contingency planning ; layout & process design

Benefits of work measurement & method study

- Improved design
- Less absenteeism
- Improved morale
- Better use of materials
- Improved layout
- Less labour turnover
- Better use of equipment
- Reduce fatigue

How should it be introduced ?

- Involve Employees at start
- Get 'Buy-In'
- Be open about Work Measurement techniques
- Present / Communicate effectively
- Promote the benefits
- Times need to be realistic

Link with Quality / TQM (see other sheet)

Definitions of Quality : 'Fit for Purpose' | 'conformance to specifications' | 'Get it Right First Time'

BUT – quality products & services are aimed at satisfying Customers ∴ their PERCEPTION is KING

QUALITY IS ABOUT SATISFYING CUSTOMERS

Quality and Quantity sit together to produce TOTAL QUALITY. Changes & results must be quantified on a regular basis (SREDIM). Work measurement important to measure & monitor improvements.

All companies which received 'Malcolm Baldrige National Quality Improvement Award' used Work Study

KAIZEN – Continuous Improvement | **MUDA** – Elimination of Waste

Need Internal Improvement ~ Work Study provides means to improve every area of business (measurable / quantifiable)

Work Study can greatly benefit the organisation in terms of **focussing , measuring & continuously improving**