TECHNIQUES OF WORK STUDY

The technique is systematic and it is concerned with efficiency and economy in human work. It is divided into two relative activities, namely method study and work measurement. The former is concerned with the identification and development of improved methods and systems, while the latter is the technique used to measure and assess human effectiveness.

Method Study

This has been defined as:

"The systematic recording and critical examination of existing and proposed ways of doing work, as a means of developing and applying easier and more effective methods and costs".

The objectives are:

- The elimination of unnecessary movements.
- The arrangement of the sequence of motions in their most efficient order.

Method study can be usefully applied in planning layouts, for example, kitchen, restaurant, bar, etc., and also in organising work procedures, for example the method of cleaning a room, preparing dishes, etc.

There are six basic steps in a method study investigation, which will be discussed below:

Select the job to be studied (identify the problem).

There are three factors which are involved here, economic, technical and human.

The first factor is concerned with finance, as Work Study is an expensive and time consuming activity, the gains which are realised may not necessarily exceed the costs of
the study. This, will of course, depend on whether the savings are monetary instead of improved conditions or improved morale, and whether the investigation is a long term project.

The second factor is concerned with products or processes and whether, technically, there are reasons why a job has to be done in a particular way.

The third factor is probably the most critical. There may be reaction from the workforce whatever the merits of the investigation. The timing is crucial. An investigation should not be started at a time of unrest, end it is necessary to avoid building up resistance or else the study will be sabotaged.

The important factors regarding the selection of jobs are:

What is the problem, has it been identified, is it the right one?
Is the time right and has it been communicated adequately?

Record the Facts About the Job

This step involves the recording of the facts about the present method as observed.

Charts and diagrams are built up and used to follow two areas, sequence and movement.

The principle sequence types are:

- Outline process chart - this gives a broad picture using only operation and inspection symbols.

- Flow process chart - this is more detailed and uses all symbols. It can represent man, material or equipment type.

- Two handed process chart - records the hands or limbs of an operative in relationship to one another.
Further charts include the multi-activity chart and the simultaneous motion cycle charts (Simo charts).

The movement of men and materials is recorded in the following way to detect congestion, backtracking and excessive journeys:

- Flow diagram - this is a process chart which is superimposed on a scale plan of the working area.
- String diagram - this again uses a scale plan of the area and records more complex paths of movement. (If two or more objects are involved, the flow diagram is no longer useful). A continuous length of string is threaded around terminal, points, which represent the places to which the operatives or materials need to go. This shows areas of high activity and the distance travelled.