Time & Motion Studies
What are Time & Motion Studies and how will it help my workplace?

Vative Time & Motion Studies will provide your business with an overview of value adding processes and how they are balanced between process steps. Time & Motion Studies are used to improve processes including Quick Change Over (SMED) and Standard Work.

Using Lean techniques we teach your team about:

- The importance of improving change over times
- Details of change over including internal/external time, preparation and after tasks
- Efficient sequencing of the change over
- Identifying waste in the current process
- Effectively implementing systems to eliminate waste
- Monitoring the performance of the change over
- Continuing the process for other types of change overs
- Quick Change Over, Standard Work and Labour Balancing information

Basic Time Study

The major goal of Lean is to identify and eliminate waste. Waste is defined as any resources spent on work that does not add value to the customer. Time & Motion Studies are about measuring what components make up a repetitive task. For example, take the process of ‘boiling water in a kettle’ as shown on the next page.

Our consultants are nationally qualified in:

- UAS (Universal Analysis System)
- MTM (Methods Time Measurement)
- Operator speed performance assessment

Measure requirements, save time!
To find out how Vative can support your Business Improvement initiatives please call 1300 VATIVE (82 84 83) or contact us at info@vative.com.au

Lean Tools
Time & Motion Studies

BEFORE: Boiling Water in a Kettle
- take kettle to sink = 7 secs
- fill kettle with water = 30 secs
- replace kettle on stand = 9 secs
- switch kettle on = 2 secs
- wait for water to boil = 120 secs

AFTER: Boiling Water in a Kettle
- take kettle to sink = 7 secs
- fill kettle with water = 10 secs
- replace kettle on stand = 9 secs
- switch kettle on = 2 secs
- wait for water to boil = 0 secs

By conducting a basic Time & Motion Study, you can begin to understand how the various components of a task each contribute to the whole, as shown in the BEFORE state. Immediately, we can see there are two components that stand out as having excessive time: “fill kettle with water” and “wait for water to boil”.

By attacking these areas of ‘waste’, we can reduce the time taken by improving the process. An example of a successful outcome is shown in the AFTER state.

Time & Motion Study techniques can be applied to a range of processes including:
- Capturing machine time and human time
- Capturing value-added and non-value added work
- Capturing walking distances
- Capturing processes that do not occur every cycle
- Understanding the time process time for an ‘average speed’ operator

Stopwatch studies are a simple and common way to complete time and motion studies, but an alternative is to use a predetermined motion time system such as MTM or MODAPTS. These systems allow the very accurate estimation of process time without having to observe an operator.

Once a process is optimised, it can then be balanced with the right amount of labour, and then the process can be standardised.

Standardised, balanced work is the fastest, highest quality and most efficient way to complete a repetitive task. Time & Motion Studies are critical in creating standardised and balanced work.