

ABSTRACT

Work design is an activity which must be done for having the best work design. A well done work design activity can integrate each component in the system that will result to a harmonic interaction among them. The final expectation from this activity is effectiveness and efficiency that'll lead to productivity improvement.

The goal of this research are first, to know the weaknesses of the present working method and facility used by PT. Usman Jaya Mekar Textile Industry, and second to generate new more ergonomic designs for providing better work condition for each operator so that their performance will increase gradually.

This research used RULA (Rapid Upper Limb Assesment) for indentifying operator's work postures. RULA works by indentfying and assessing any musculoskeletal disorder symptoms. It also eliminates some unproductive working elements which have no direct corelation with adding value process for shortening operator working hour cycle.

Improvement on working method produce time standard efficiency from 26231.318 s/beam (4.007 s/sheet) to 26112.341 s/beam (3.989 s/sheet). This means an increase in operator productivity with average skills, which is from 14.974 cucukan/minute to 15.04 cucukan/minute.

From work posture point of view, the changes in working methode and facility based on operator anthropometric measurement, result in quality improvement in working system, that fits to ergonomics principals. It is shown by the decrease of RULA final score from 4.14 to 3.6. Eventhought there's no class improvement but the reduce of final score indicates improvement in operator work posture.

Key words: Work design, Ergonomic, Anthropometry, Standard time, RULA