Industrial ergonomics

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Ergonomics is the field of science that aims at creating tasks and tools that suit employees in their respective duties at the workplace. Ergonomics looks at the tasks, tools, machines, workplace layouts, and the entire organisation to determine their suitability for employees rather than employees fitting to these aspects of an organisation. Therefore, a clear understanding of task analysis plays a key role in assisting supervisors and managers in identifying ergonomic health hazards and creating solutions to eliminate such hazards. With proper measures in place, risks of cumulative trauma disorders, back pains and costs related to treatment of such disorders can be significantly reduced at workplaces (Deeb, 2004).

According to Jonassen (1999), on the other hand, task analysis refers to systematic assessment of how tasks are accomplished. In task analysis, serious attention is given to task duration, task frequency, task complexity, task allocation, work environment, clothing and equipments, and employee fitness. Information obtained from task analysis is helpful in various areas within an organisation, which include designing of tools and equipments,

selection and training of employees, designing of procedures, and automation within an organisation.

Task analysis courses are available for managers, supervisors and persons working in ergonomic committees. People who undertake this course acquire training on conducting ergonomic task analysis by looking into how employees perform their duties, as well as formulating measures that adapt employees to their work. Different methods of task analysis exist, but for one to decide the most suitable method, a good understanding of the analysis to perform is required. There are five types of task analyses that are available that include job analysis, learning analysis, cognitive task analysis, content analysis, and activity analysis. Different procedures are used for each of the five methods of task analysis (Jonassen, 1999).

Having looked into task analysis, it is also necessary to look into applied cognitive task analysis, which is one of the task analysis methods. Applied cognitive task analysis focuses on tasks that require a person to apply a lot of cognitive activity. Such tasks involve processes of problem solving, decision making, activities that require substantial memory, attention and judgement (Jonassen, 1999).

Deeb (2004) asserts that there is no doubt that task analysis can be said to be a crucial element in the science of ergonomics. Evidence gathered in this paper reveals that objectives of ergonomic cannot be achieved without suitable task analysis procedures in workplaces and organisations. Therefore, supervisors and managers should have training in task analysis in order to accomplish ergonomic strategies in workplaces.

References

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