Integrating ergonomics into engineering: Empirical evidence and implications for the ergonomist

Engineering design is a strong determinant of workplace ergonomics. A survey among 680 engineers in twenty Danish enterprises indicated that engineers are not aware that they influence the work environment of other people. Ergonomics had a low rating among engineers, perhaps because neither management nor safety organizations expressed any expectations in this area. The study further indicated that effects of ergonomics training in engineering schools were very limited. The engineering cultures in enterprises, together with other organizational factors, are suggested to be of greater importance than the professional training. The implications for industrial ergonomists might be an acknowledgement of the role as change agent when trying to integrate ergonomics into engineering. In doing so, they need also to acknowledge that engineers are widely different. They have different background and 'sensitivity' to ergonomics depending on their current engineering domain, tasks, organizational position and the industrial branch of their organization.