

Ergonomics & Human Factors

Different or the Same?

The terms “human factors” and “ergonomics” are sometimes used interchangeably. Other times, they seem to refer to quite different disciplines.

What is the difference between the two terms?

Ergonomics has its historical basis in the physical sciences. It is often associated with things that can be physically measured e.g. workstation arrangement, furniture dimensions, manual handling, light and sound levels.

Human factors, on the other hand, has its historical basis in psychology. It is often associated with our ability to perceive and process information, work organization, teamwork and stress.

This categorization belies the fact that human beings are complex creatures and that there is considerable overlap between the body and the mind. Although there are historical differences between ergonomics and human factors, the philosophy underpinning both is the same—that there is an interaction between physical, cognitive and organizational factors which ultimately affect our physical wellbeing and the decisions we make. Further, if one factor is manipulated, this can have an impact on other factors.



Case example

Illumination is a physical quantity which can be measured. It is well accepted that we are more likely to trip and fall if illumination is inadequate. Subsequently, standards recommend minimum illumination levels for safe mobility.

Late last year, a paper was published in the Journal of the American Medical Association claiming that functional ability, mood and sleep were improved for people with dementia when illumination levels were kept near 1000 lux throughout the day.

In an aged-care facility, improving the cognitive function of residents and decreasing their number of falls can have organizational implications such as on staffing levels and required level of care. So changing one physical parameter, lighting, can have broader cognitive and organizational implications.

The same philosophy

Ergonomics and human factors offers a holistic approach to solving problems. Artificially separating the two means that we risk seeing only part of the broader picture.



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