

Behaviour based safety approach and factors affecting unsafe behaviour in construction sector: a review

ABSTRACT

Objective: Construction sector is a critical sector due to high accidents and fatality rates, while unsafe behaviours like human errors and inappropriate operations has been reported as the main cause of accidents. The purpose of this review is to explore the factors influencing unsafe behaviour and to introduce the Behaviour Based Safety (BBS) approach for accident prevention triggered by those unsafe behaviours.

Method: This paper reviews several relevant studies on unsafe behaviour and Behaviour Based Safety (BBS) approach in the construction sector. Resources for this review are obtained from several online databases where studies are categorized based on their findings.

Findings: The factors behind accidents and unsafe behaviour can be categorized into 8 main categories; Individual Factors, Site condition, Work group, Contractor, Supervision, Project Management, Organization, and Society. Daily observations, workgroups focus and use participative goals with multiple feedback mechanisms are the ideal components of an effective Behaviour Based Safety (BBS).

Conclusion: The review provides a link between unsafe behaviour and Behaviour Based Safety (BBS) approach as an effective process in changing the behaviour of workers in the construction sector.

Keyword: Construction; Accident; Unsafe behaviour; Behaviour based safety