



## Assessing Work Safety Behaviour: A New Direction

*Accidents in the workplace cost national economies billions of dollars every year. In order to avoid the financial and legal consequences of workplace accidents, it is crucial for businesses to implement preventative measures on a number of levels.*



The issue of work safety prevention is of paramount concern in any workplace, regardless of the type of industry or commercial environment. Workplace accidents cost the economy billions of dollars every year, and these costs are often underestimated by businesses. These include direct costs, such as fines, compensation payments, and costs for legal services, as well as indirect costs such as OH&S insurance premiums, increased turnover, loss of productivity and loss of income. Additionally, in the wake of the Global Financial Crisis, it is now more important than ever for organisations to minimise the financial consequences of workplace accidents.

Industry organisations in particular are susceptible to the devastating impact of workplace accidents. For instance, BHP Billiton missed its production targets for the year due to shutdowns resulting from seven deaths at mine sites during the 2009 financial year. As reported by the Australian Financial Review, (AFR) (p5, 23.07.09) these fatalities have not only resulted in worse than expected production figures for BHP, but have also put the resources giant under pressure to address this safety record. Companies that fail to prevent accidents in the workplace may face similar issues. In Australia, the Federal Government is working to harmonise OHS laws across the states and territories, and this “model legislation” (draft Safe Work Act) requires “officers” to ensure the health and safety of workers.

As noted in the AFR (p5, 26.10.09) this implies an individual duty ‘apart from’ the duty officers have on behalf of the company, and requires an officer “to show due diligence regardless of what the company is doing.” Conceivably, HR actions could be included within that responsibility.

To prevent the devastating impact of workplace accidents, it is crucial to consider preventative measures on a number of levels. Firstly, environmental factors must be considered. This includes such measures as protective guards for machinery, protective clothing and the removal of hazards. This level of prevention is aimed toward the creation of a safe physical environment, and plays an important role in the removal of opportunity for injury or harm. Secondly, companies must address safety issues through the implementation of a strong safety policy. This refers to putting rules in place regarding such things as the reporting of hazards or the handling of dangerous materials.

The final strategy for the prevention of workplace accidents involves human resource management. This involves making effective recruitment and retention decisions in order to manage risks and control costs by screening out individuals who are most likely to exhibit unsafe behaviour in the workplace. This enables the organisation to create a safer work environment, and is more productive and efficient.

Effective talent management also requires managing potentially unsafe individuals who are already part of the organisation. For example, this may involve assigning higher-risk individuals to lower-risk environments.

Opinions vary as to the most effective methods of measuring and predicting work safety behaviour. As a part of overall safety management, businesses have typically attempted to implement a 'safety culture' in which employees work together to create a safe workplace (Henning et al., 2009). It has traditionally been thought that a strong safety culture leads to a safer workplace, and many work safety tests and assessments have been developed on the basis of the "safety culture" approach. However, the most recent research in the area of work safety suggests that existing measurements of work safety behaviour may be missing the mark.

The latest research has been unable to find evidence that the safety culture approach is actually related to employees' safety behaviour. A recent meta-analysis of work safety behaviour by Clarke (2006) has reported that safety culture has little predictive power in relation to work accidents, and that safety culture "has been oversold as the primary indicator of the quality of an organisation's safety effort, as suggested by some researchers".

This lack of predictive power may be a result of workers interpreting relevant policies and procedures differently. Another explanation is that safety culture may be too broad to predict behaviour – although workers may believe that safety is important, this may not translate to safe workplace behaviour in a day to day context (Mearns, Rundmo, Flin, Gordon, & Fleming, 2004). As a result, most work safety assessments commonly used by talent management professionals may in fact be ineffective in the prediction of actual on-the-job safety behaviour or workplace accidents.

Research has instead revealed that individual factors, such as attitudes and personality, are much more capable of predicting employees' safety performance.

For instance, individuals who are overconfident are more likely to display risky and unsafe behaviour, whereas optimistic individuals tend to be more work safe (Clarke & Robertson, 2005).

This new approach of predicting work accidents has received a large body of support in the field of work safety research (Henning et al., 2009). As a result, it is recommended that talent managers utilise personality measures in an attempt to identify individuals who are likely to be involved in workplace accidents, exhibit unsafe behaviour and be less aware of hazards in the workplace.

Unfortunately, as the majority of existing work safety tests are based on the concept of safety culture, there is a paucity of assessments which enable talent managers to accurately identify or measure unsafe individuals. The application of a personality-based work safety assessment to the prediction of safe behaviour will ensure that organisations more effectively manage risks and minimise injuries, illnesses and fatalities resulting from workplace accidents.

Personality-based work safety tests can also be administered to existing staff to assess the level of accident risk in the organisation. Furthermore, they may be used in conjunction with a training program or workshop as part of improving employees' work safety behaviour.

By including specially designed personality measures in the recruitment process, individuals who are likely to hold negative safety attitudes and engage in risky behaviours may be eliminated from the applicant pool. This enables organisations to more effectively manage talent, mitigate the financial and legal consequences of workplace accidents, and create a safer, risk-free workplace environment.

A broader perspective is to ensure an objective and criterion-based recruitment process overall where the approach is to assess the suitability of a potential employee for a safety conscious work environment in general, rather than focus on the specific issue of a "safety questionnaire". In this manner we can say that, for example, this person's anxiety is at a level that may make for a poor employee generally rather than for an unsafe employee specifically. Overall it is a simple risk management approach with a specific "safety questionnaire" incorporated into an online recruitment assessment process. In this way, the organisation utilises an assessment of work safety within a broader "suitability for employment" context.

The benefits of an online selection approach generally, which can incorporate a safety assessment, is that it can either benchmark current staff, or collect data on future staff to establish a correlation between overall work suitability, specifically safety issues with the individual, and their past safety record (retrospective analysis) OR future safety (prospective analysis). Either way, the online screening approach allows organisations to have a recruitment system which is quicker than current processes (time to hire), less expensive in terms of direct and indirect expenditure (cost of hire) and gains better employees overall (quality of hire) as well as more safety conscious employees (managing safety risk) who will stay longer (tenure).

In addressing the paucity of valid work behaviour assessments, Psych Press has developed a tool based on the research summary above. The Work Safety Assessment has been specifically developed to identify employees who are likely to exhibit unsafe behaviour at work, and to assist organisations prevent workplace accidents. Information provided by the Work Safety Assessment may be used by talent management professionals to more efficiently manage human resources, make recruitment and retention decisions, or inform training interventions. The assessment is a measure of personality and cognitive factors which research has demonstrated to predict work accidents.

For those practitioners working in safety-sensitive contexts who would like to participate in a complimentary pilot testing or evaluation of this questionnaire, please just contact us at [info@psychpress.com.au](mailto:info@psychpress.com.au).

Further information is available at:  
<http://psychpress.com.au/psychometric/talent-psychometric-testing.asp?work-safety>

## References

- Clarke. S. (2006). The relationship between safety climate and safety performance: a meta-analytic review. *Journal of Occupational Health Psychology*, 11, 315-327.
- Clarke, S. & Robertson, I.T. (2005). A meta-analytic review of the Big Five personality factors and accident involvement in occupational and non-occupational settings. *Journal of Occupational and Organizational Psychology*, 78, 355-376.

De Krester, A. (2009, July 23rd). Poor safety record hits BHP output. *Australian Financial Review*, pp. SBA001, 19.

Henning, J.B., Stufft, C. J., Payne, S.C., Bergman, M.E., Mannan, M.S. & Keren, N. (2009). The influence of individual differences on organizational safety attitudes. *Safety Science*, 47, 337-345.

Maley, J. (2009, October 26th). OHS responsibility reaches boardroom. *Australian Financial Review*, FBA 005, pp. 5

Mearns, K., Rundmo, T., Flin, R., Gordon, R., Fleming, M. (2004). Evaluation of psychosocial and organizational factors in offshore safety: a comparative study. *Journal of Risk Research*, 7, 545-561.