

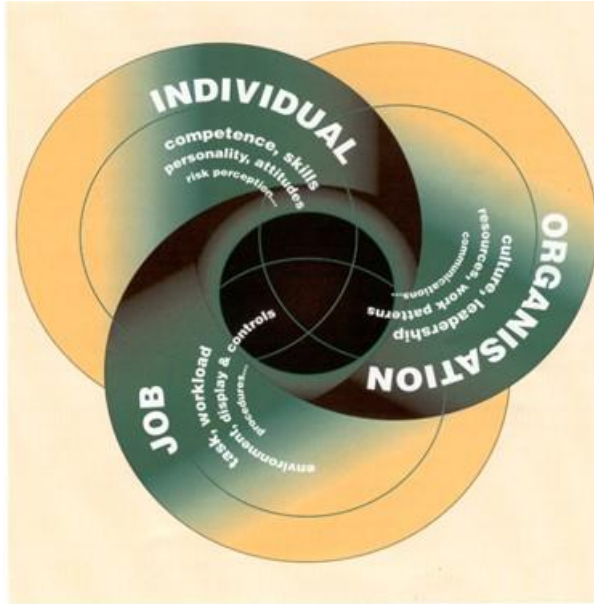


Workshop 4. Refinement of Risk Assessment with focus on Human Factors

Dr. David Tjong
Retired Global Director, Health, Safety & Environment,
Ideal Standard International

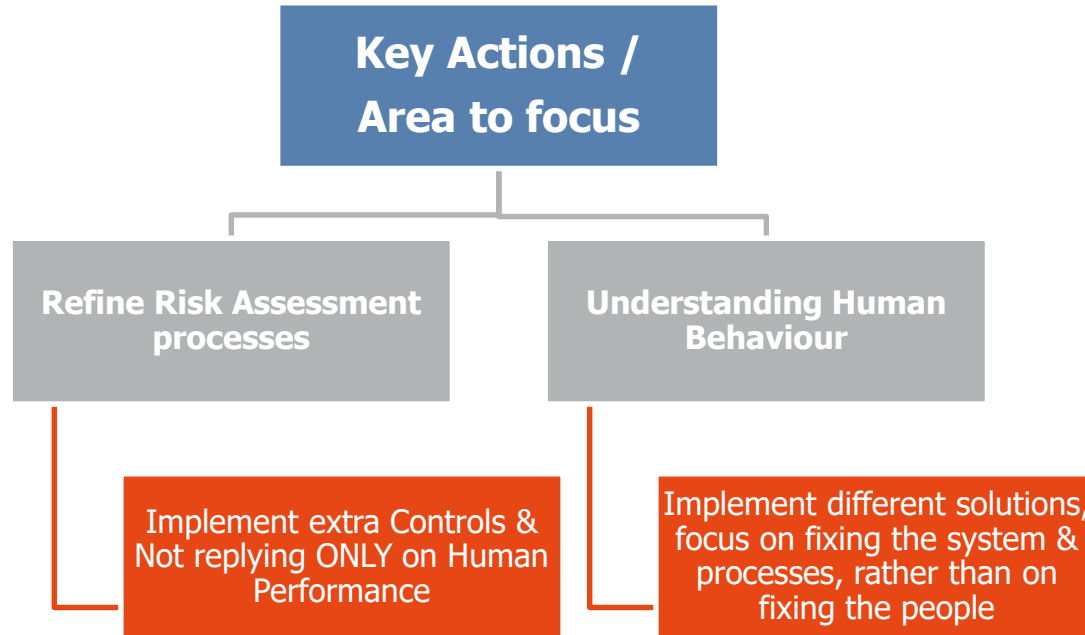


But, what is Human Factors???



The UK Health and Safety Executive defines human factors (HSG48) as: “environmental, organizational and job factors, human and individual characteristics which influence behaviour at work in a way which can affect health and safety.

This includes the jobs people do, the Individuals doing the jobs, and how They are organized and managed.”





Key Actions and Areas of Focus:

A

Refine Risk Assessment processes

Implement extra Controls / Defenses & NOT rely ONLY on Human Performance

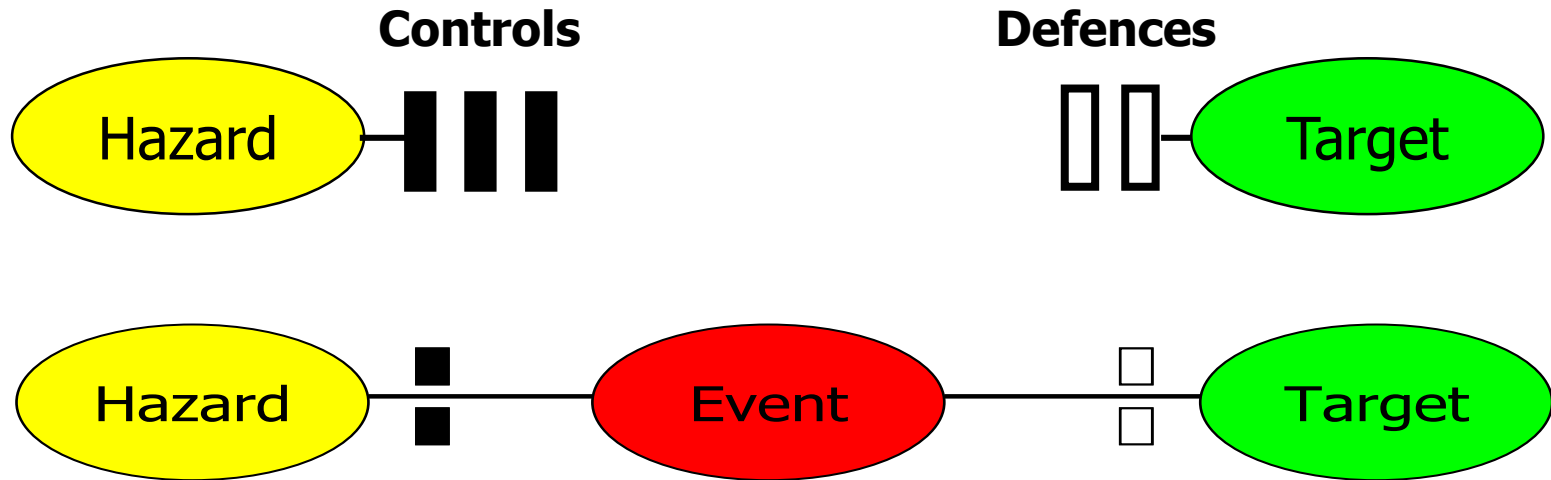
Refine Task Hazard Risk Assessment (Job Safety Analysis / FMEA)

Start with site accident history; critical hazard on site etc.

Identify current controls/defenses

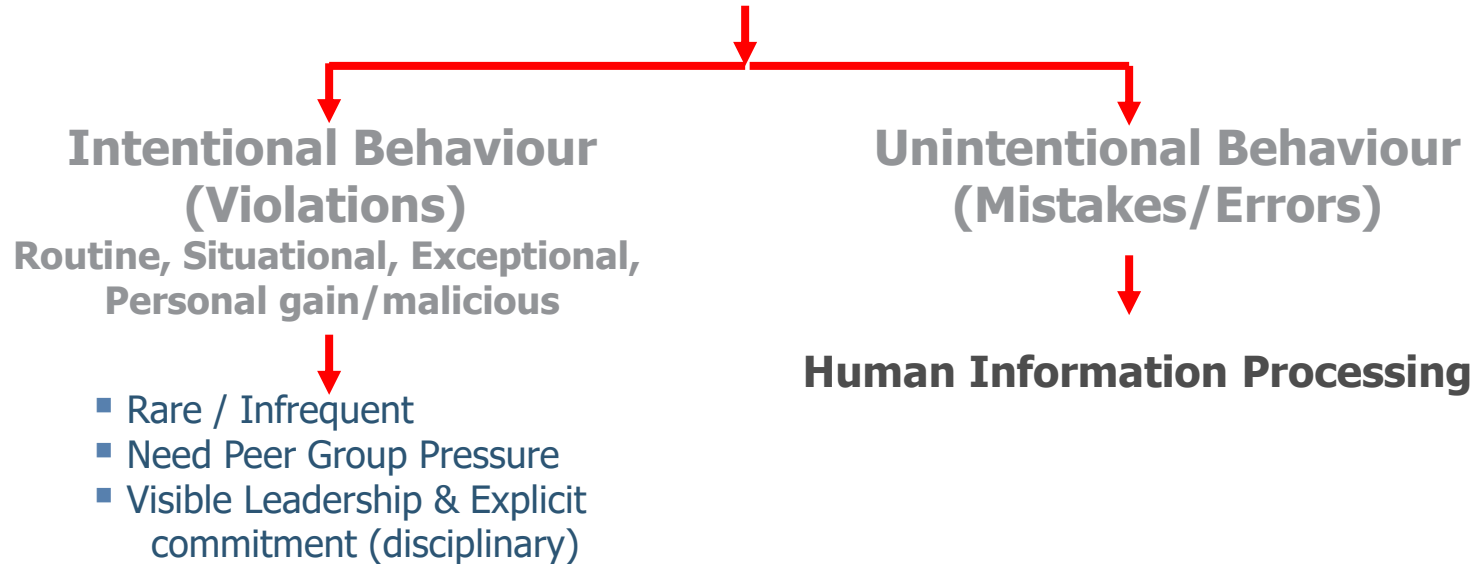
Identify extra control/defense according to control hierarchy and NOT rely ONLY on Human Performances

Incident Investigation and Analysis





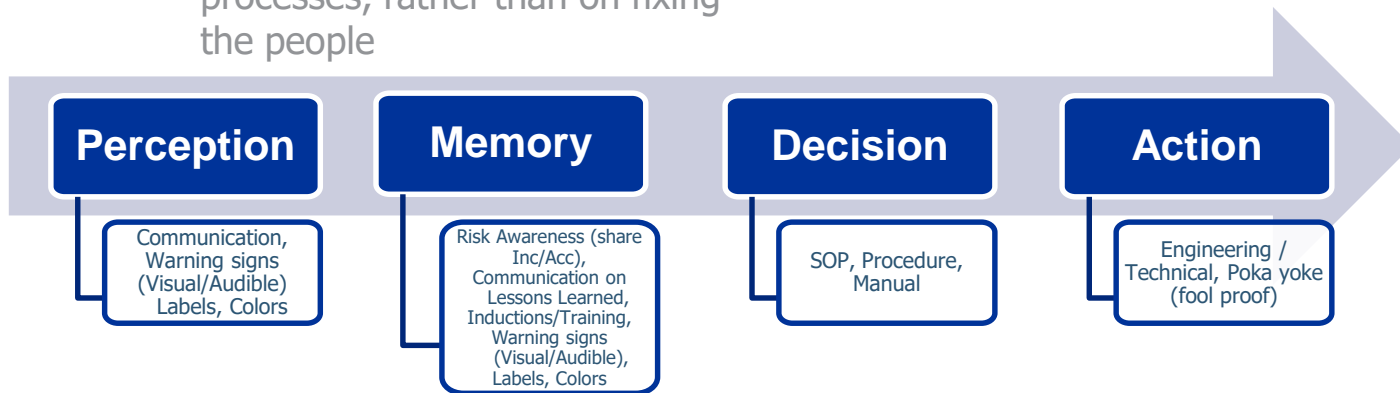
Undesired Behaviour





Key Actions and Areas of Focus:

- B** Understanding Human Behaviour
Implement different solutions,
focus on fixing the system &
processes, rather than on fixing
the people



Make it easy to do thing right & difficult to do it wrong

Keys Performance Influencing / Shaping Factors:

- Time & Job pressures
- Multiple tasks
- 'Lean' structure
- Communication
- Inadequate training
- Complex rules & procedures

ADDITIONAL Control Measures														
Elimination / Substitution					Personal Protective Equipment									
Information/Instruction/Training					Managerial Controls									
Physical Controls					Procedural Controls									
					Revised Risk Assessment									
					Hazards		Likelihood			Severity			Risk Rating	
					Ref.	Probable	Occasional	Remote	Catastrophic	Critical	Serious	Marginal	Negligible	Likelihood x Severity
						3	2	1	5	4	3	2	1	
Review Date:														0
														0
														0
Authorised By:														0
														0
Approved By:														0
														0

Thank you for your attention!

Dr. David Tjong

Mobile: +32 473 983 244

Email: dtjong008@gmail.com