ISCRR Research Impact Showcase

Thursday 9th February 2023

Systems thinking – additional questions

Responses by Professor Sharon Newnam (QUT) and

Dr Natassia Goode (WorkSafe Victoria)

Do we know the average time it took to complete and has there been any negative feedback related to this?

Responses ranged from 1-2 hours. However, this depended on their level of experience. That is, most participants said it took them around 1 hour to complete a review following their first review (and consultation with me (Professor Sharon Newnam)). The time to complete a review was the primary negative feedback; hence the rationale for creating the STIR App.

Isn't Systems Thinking transferring "blame the worker" to "blame the executive/company"?

This was a criticism of earlier incident causation models, such as Reason's Swiss Cheese which underpins ICAM. Swiss Cheese shifted the focus from human error onto failures at the supervisor, company and board levels (e.g. the holes in the cheese).

Systems thinking models (e.g. such as Rasmussen's Risk Management Framework and Leveson's STAMP) takes quite a different view to the underlying causes of incidents. For example, in Accimap, the contributory factors should describe: 1) why decisions and actions made sense at the time; and 2) the conditions of work (e.g. the equipment, layout, supervisory arrangements). Again, it is important to avoid just focussing on perceived errors or failures. The analysis should be as inclusive as possible, and include subjective perceptions (e.g. accepted practices, beliefs) as they are often a key factor in decision-making.

How do you convince business leaders that the additional costs from restructuring needed by applying Systems Thinking is justifiable?

Employers from healthcare and social assistance who choose to participate in the STIR trial will receive free training and coaching on implementing a systems thinking based approach.

Access to the STIR App for the healthcare and social assistance industry will be free, and there is online training embedded into the App.

Employers can also download the PHIRES Toolkit for free from the WorkSafe website.

Of course, there are always costs associated with implementing a new process in a business. I would provide the following as a justification:

- If the recommendations from investigations focus on blaming and retraining injured workers, you can pretty much guarantee that those incidents/injuries will reoccur with another worker.

- Continually retraining staff is costly, and workplace injuries are costly to the individuals and organisations involved. A single WorkCover claim impacts on your premium for four years.
- Applying a systems thinking approach should help you identify the underlying conditions in the system that are influencing workplace injuries, and develop strategies to address them. This should allow you to allocate resources for safety improvement more efficiently, as you're not just focussing on incidents as isolated events.