



Health Services Safety
Investigations Body

Learning Resource

Introduction to systems-based investigations in healthcare

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About this Learning Resource

Type: video lecture

Audience: Learners with roles in healthcare safety investigation, including investigation, commissioning, oversight and involvement.

Duration: 8 mins

Objectives: By the end of this resource, you will be able to:

1. Describe what is meant by a systems-based investigation.
2. Justify the use of systems-based frameworks to support analysis.
3. Discuss the principles of counterfactual reasoning and local rationality.

Watch the video

Competency mapping

Includes introduction to the following competencies [1]:

- 4.2 Understands the fundamentals of a systems approach, investigation methodologies and methods, and of engaging people.
- 17.1 Understands systems thinking and why it is needed within investigations in complex healthcare systems.
- 18.5 Counterfactual reasoning (what could or should have happened) is not the final outcome of an investigation; the focus is on understanding the work system.
- 18.6 Exploring local rationality (the influence of situation and context on decisions and actions) is key to understanding why work differs from what was expected.

[1] Lim, R., Hide, S., et al. (2026) Development of a competency framework for healthcare safety investigators: a modified e-Delphi study. Safety Science, 198, 107161. DOI: [10.1016/j.ssci.2026.107161](https://doi.org/10.1016/j.ssci.2026.107161)

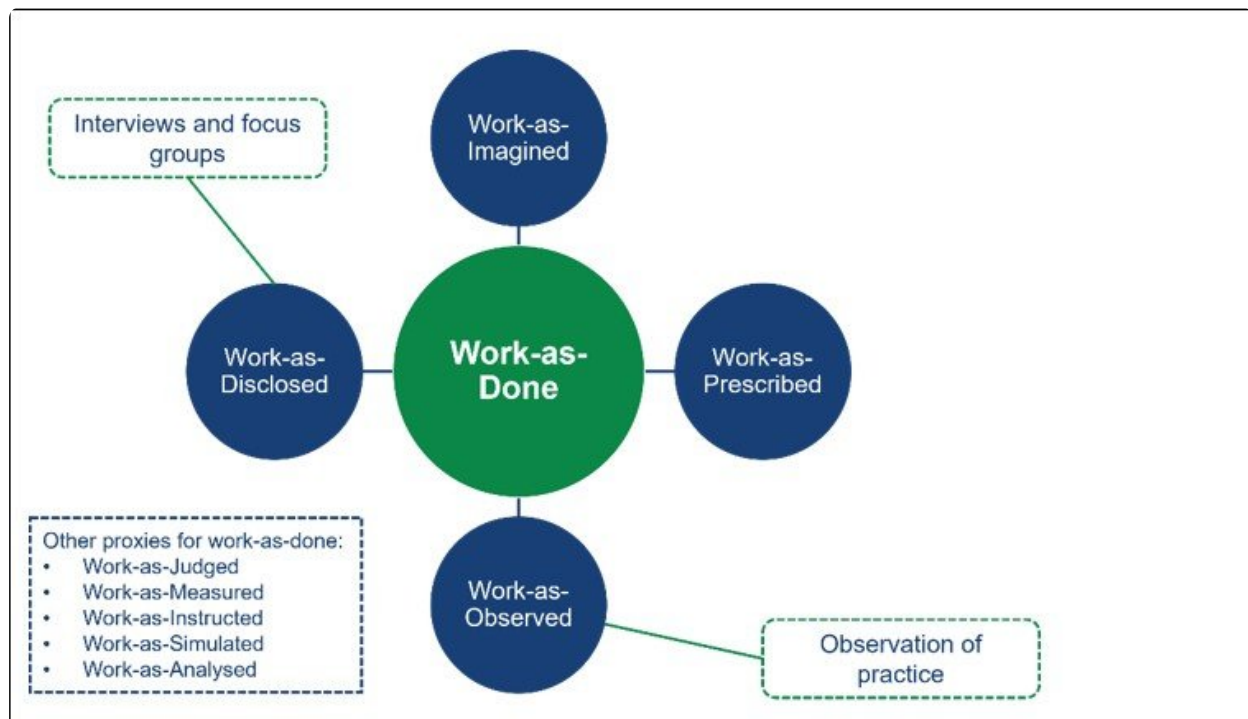
Further reading

- Macrae (2025) – [Thinking and organising in systems: reframing the long problem of learning from incidents](#)

- Sampson et al. (2021) – [Systems-based models for investigating patient safety incidents](#)
- Humanistic systems – [The varieties of human work](#)
- Monash University – [CARE-QI: a handbook for improving quality through resilient systems](#)
- HSSIB – [Learning response review and improvement tool](#)

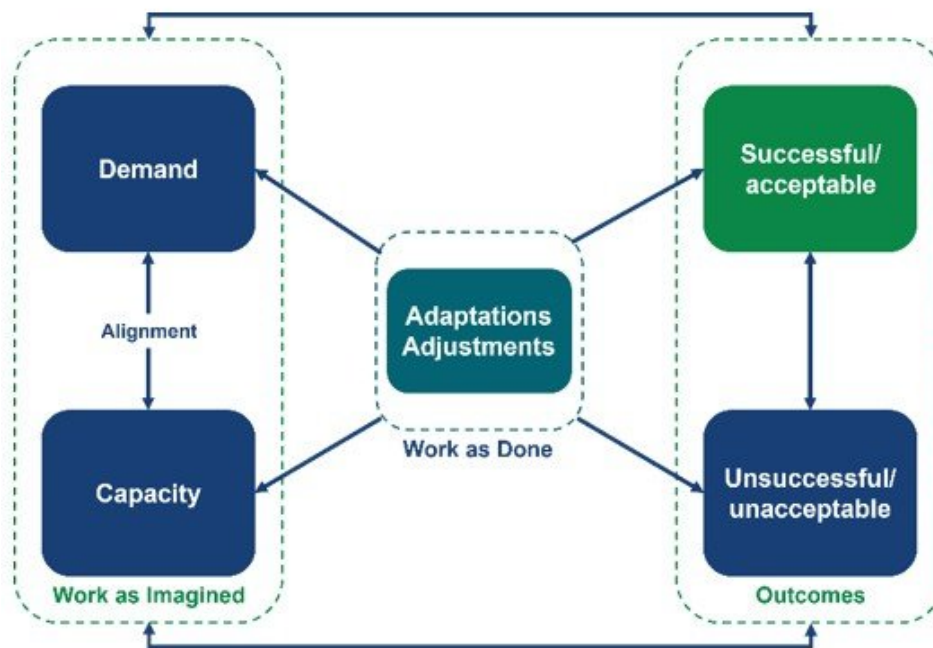
Key images

Varieties of human work



Adapted from Humanistic systems – [The varieties of human work](#)

CARe-QI



Adapted from Monash University – [CARe-QI: a handbook for improving quality through resilient systems](#)