Enhancing emergency management decision making

NHRA Project T2 A4

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NHRA Research Team:

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Brief background

→ In 2022 NHRA undertook a series of workshops across the sector in Australia and NZ to help identify research priorities

→ Decision making was identified as an important topic requiring research. This led to NHRA in May 2023 commissioning this 2 year project

→ The project has three main components:

1. Review of existing knowledge, tools and training options targeted to key decision making skills.
2. Identification and assessment of options for new and/or enhanced training and learning products.
3. Development, testing and implementation of selected new or enhanced evidence-based training and learning products.

The research team

A/Prof Chris Bearman & Dr Peter Hayes

- CQU Appleton Institute

Prof Jim McLennan

- La Trobe University

A/Prof Greg Penney

- Charles Sturt University & FRNSW

Prof Rhona Flin

- Robert Gordon University (UK)

Dr Phil Butler

- Cardiff University (UK) & Birkdiff Human Factors

Partner research organisations

- ❖ TFS
- ❖ FRNSW
- ❖ FRV
- ❖ DEW/PWS (SA)
- ❖ NSW SES
- ❖ AFAC
- ❖ Air Services
- ❖ QFES
- ❖ DFES
- ❖ CFA

Outline of the project's activities

→ **Phase 1: Review of existing knowledge, tools, and training options**
- 1a: Literature review (academic and grey literature, EM & HRO)
- 1b: Survey and interviews (Australia & UK)

→ **Phase 2: Identification and assessment of intervention options**
- 2a: Identification and assessment of options
- 2b: Stakeholder workshops

→ **Phase 3: Development and evaluation of training and learning products**
- 3a: Development of products that meet sector's decision making need and are implementable
- 3b: Development of skills acquisition framework for enhanced decision making training and learning
- 3c: Stakeholder workshops

→ **Phase 4: Reporting**
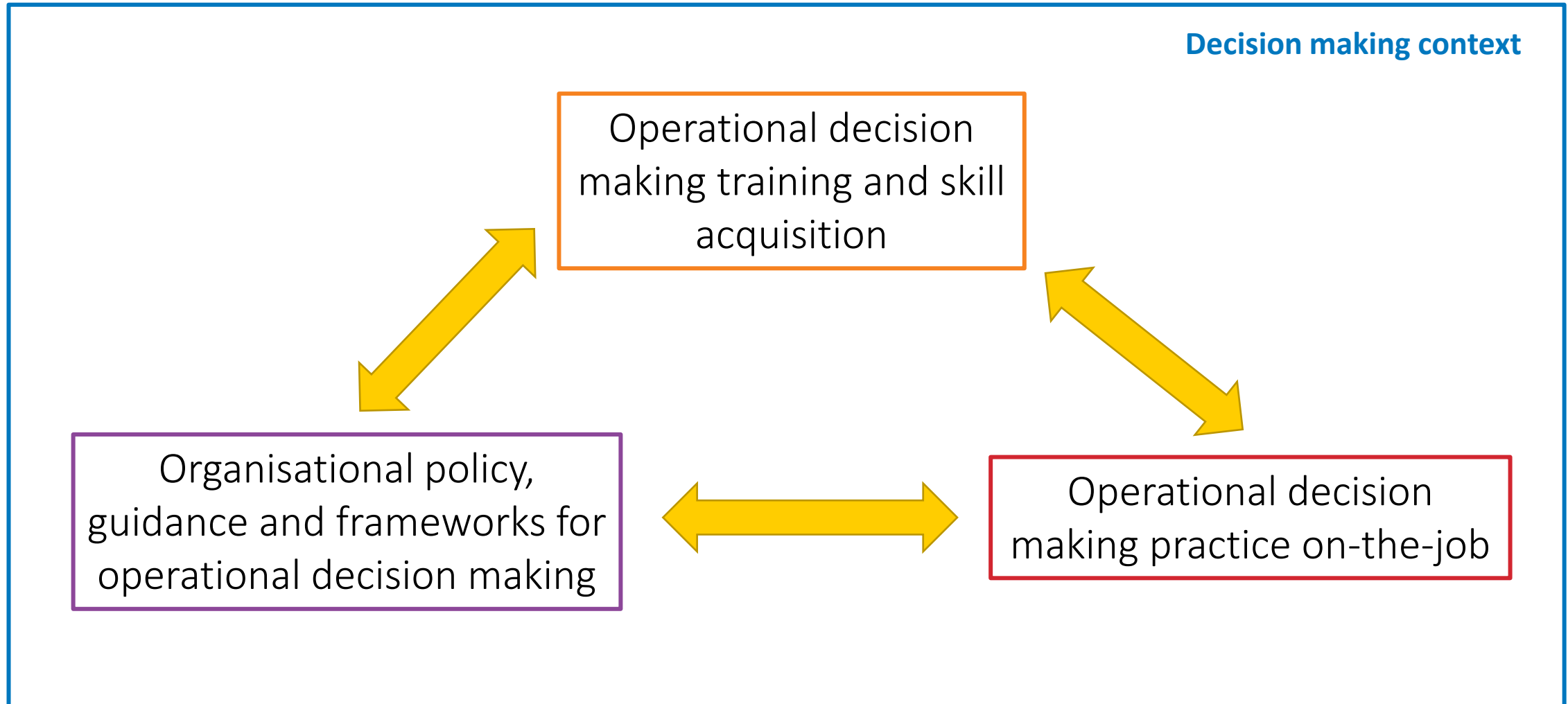- Preparation of manuscripts for publication and final report

What have we done so far…

→ Completed and submitted three manuscripts for AJEM reviewing various aspects of the decision making literature

- Challenges for emergency management decision making
- Cognitive aids for emergency management decision making
- Training to improve emergency management decision making

→ Online Qualtrics survey has so far has generated circa 200+ responses from Australia and the UK

→ Interviewed 40 decision makers from Australia and 10+ from the UK

Start point for our survey & interviews...

Decision making context

Operational decision making training and skill acquisition

Organisational policy, guidance and frameworks for operational decision making

Operational decision making practice on-the-job

So what have we found?

Training & developing decision making skills

- Practitioners tend to learn mainly about incident management, with limited content focused on decision making (DM)

- Effective mentoring /coaching important in helping some interviewees practice and build key DM skills, but typically informally arranged

Decision making practice

- Practitioners have reasonable comfort with their DM, but some recognition that they may not consider strengths/ limits of DM approaches

- Some practitioners discussed the checklists and tools they had developed to help them make decisions

Organisational policies, procedures and guidance

- Constrained and managed behaviour

Decision making context

- Resourcing discrepancies between metro, regional, rural…

- Fatigue, stress, information quality/ quantity common challenges for DM

Preliminary implications and next steps

DM context

→ Underway in developing a situational analysis from survey, interviews and literature review

DM practice

→ Develop prototype guidance outlining strengths and pitfalls of different DM approaches (also relevant to training)

→ Validation of decision making related tools

Training & developing DM skills

→ Identify key decision making (DM) training content, perhaps via a Delphi study

→ Develop prototype DM training content and pilot

→ Develop skill acquisition framework concept

Organisational policies, procedures & guidance

→ Clarify constrained and managed behaviours to ensure there is awareness of the need for policy to translate into practice

Thank you

Further questions

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