Testing Quick Reference Handbooks in Simulators

Anthony Berg February 8, 2024

1 Context

1.1 Introduction

Context

- Designing Emergency Checklists is difficult
- Checklists are usually carried out in high workload environments, especially emergency ones

Problem

- There are some checklists that may not be fit for certain scenarios
- Some checklists may make pilots "stuck"
- Checklists may take too long to carry out Swissair 111

Rationale

- Test checklists in a simulated environment
- Results in being able to see where to improve checklists

1.2 Key Background Sources

Resource	Info
US Airways 1549 NTSB Investiga- tion [1]	Description: An investigation on an aircraft that suffered from a dual engine failure from a bird strike forcing the pilots to land on the Hudson River. Reason: The investigation found that the QRH was too lengthy and the pilots' used their experience to prioritize essential actions outside the QRH to keep the aircraft in control.

2 Aim and Objectives

3 Planning

- 3.1 Diagrammatic Work Plan
- 3.2 Brief Explanation
- 3.3 Risks

4 Ethics

4.1 Ethics Checklist

My project:

- 1. Will not involve working with **animals** or users/staff/premises of the **NHS**
- 2. Will be carried out within the UK or European Economic Area
- 3. Will not have any impact on the **environment**
- 4. Will not work with populations who do not have capacity to consent
- 5. Will not involve work with human tissues
- 6. Will *not* involve work with **vulnerable groups** (Children/Learning disabled/Mental health issues, etc.)
- 7. Will not involve any potentially sensitive topics (Examples include but are not exclusive to body image; relationships; protected characteristics; sexual behaviours; substance use; political views; distressing images, etc.)
- 8. Will not involve the collection of any identifiable personal data

4.2 Ethical Considerations

5 References

[1] National Transportation Safety Board. Loss of Thrust in Both Engines After Encountering a Flock of Birds and Subsequent Ditching on the Hudson River. Technical Report PB2010-910403. May 2010. URL: https://www.ntsb.gov/investigations/Pages/DCA09MA026.aspx.