

How do cognitive biases and stress-related decision-making influence the effectiveness of Cybersecurity incident response across diverse human responder roles?

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• Background & Problem

Context

Incident response operates in high-stress environments where biases and stress can impair decision-making

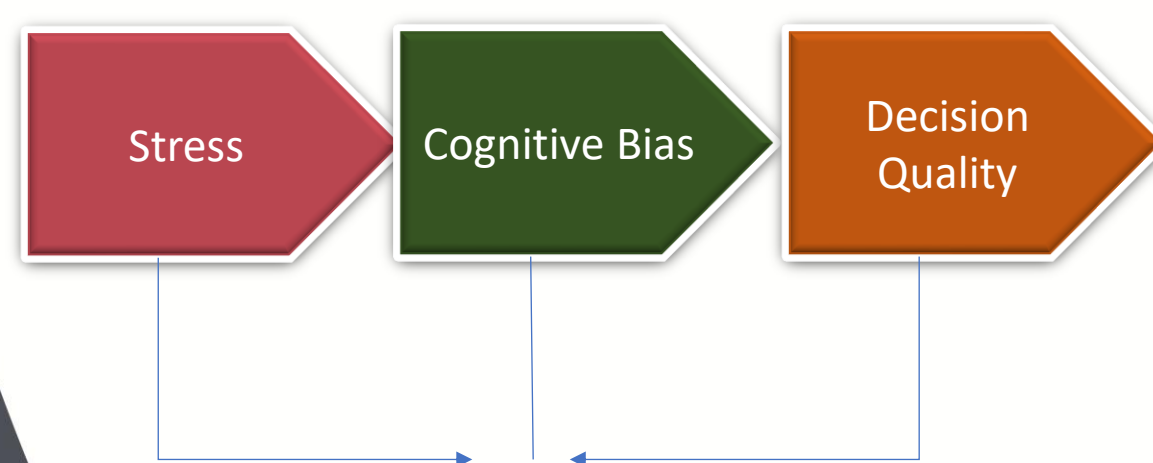
Problem Statement

Despite automation, human factors critically impact response effectiveness.

Research Gap





Limited research on how stress and biases affect incident response performance.

Cognitive Bias & Stress Impact

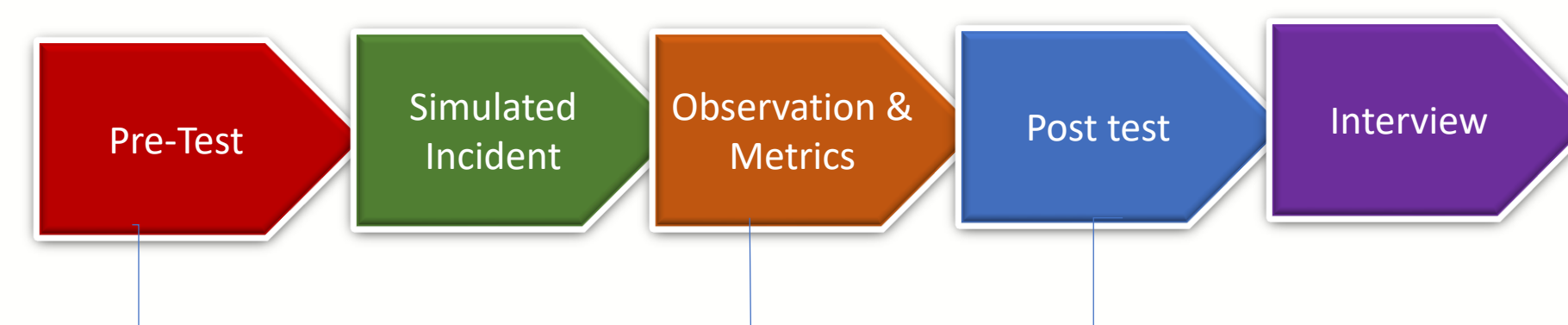


• Research Objectives & Methodology

Research Objectives

-  Assess stress & bias in IR
-  Identify cognitive biases
-  Analyse impact on performance
-  Compare across roles

Study Methodology



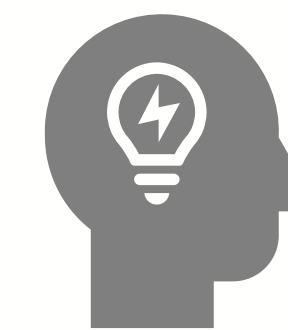
Types Of Biases



Anchoring Bias



Confirmation Bias



Availability Bias

• Expected Outcomes & Impact

Expected Findings

- Stress & biases reduce decision quality
- Anchoring & confirmation biases prevalent
- Longer response times

SOC Cognitive Load Factors



Significance

- Enhance IR training
- Inform stress-aware protocols
- Support human-centric cybersecurity