Ministry of Defence

ATKINS
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"NO MR CYBER THREAT!"

PSYCHOLOGICAL

A **Psychological Approach** to Managing the Fail-to-Challenge Vulnerability

Si Pavitt & Stephen Dewsnip

WHO ARE *WE?*

- Head of Cyber Awareness, Behaviours and Culture for UK Ministry of Defence
- Former British Army
- Forensic Psychologist
- Professional Social Engineer and Pentester

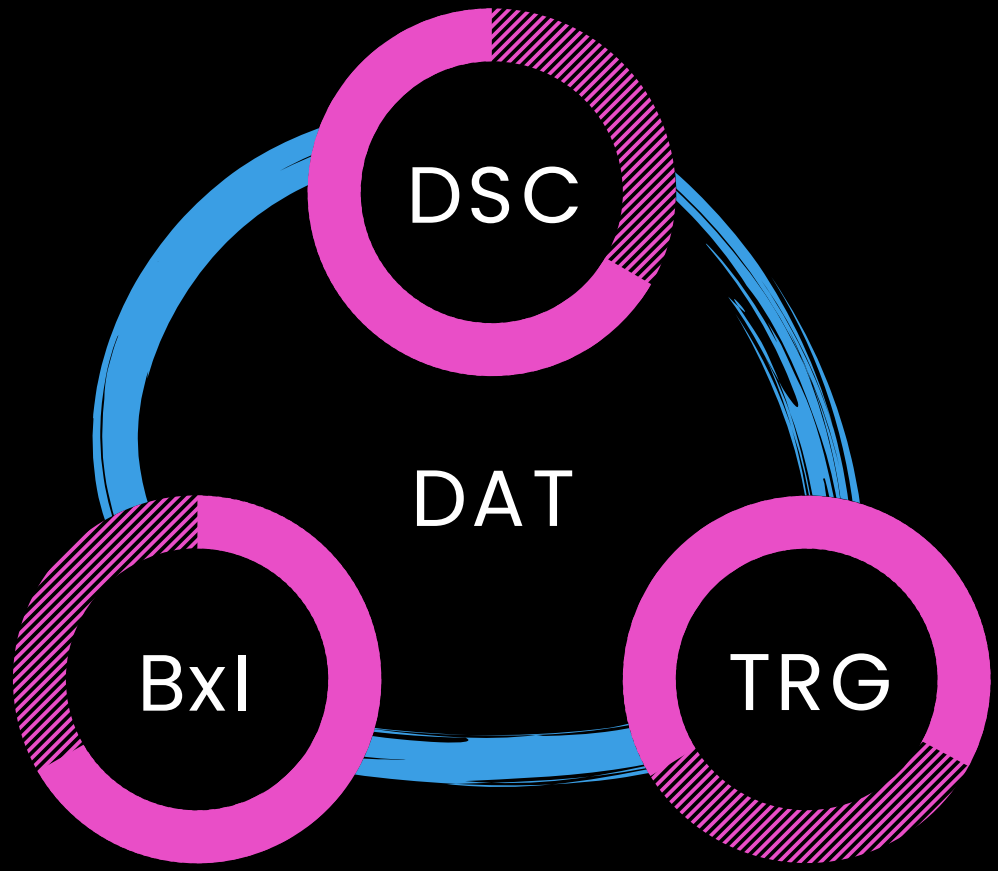
- Organisational change consultant with Atkins Global
- Behavioural Scientist for Cyber Awareness, Behaviours and Culture for UK Ministry of Defence
- Social Engineer

Cyber Confident
the front line is you

CYBER CONFIDENT

"To **demonstrably reduce cyber-security risk** across the MOD by establishing new, and reinforcing existing, positive behaviours through targeted and measurable interventions."

AWARENESS BEHAVIOURS & CULTURE



WORK TO DATE

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WHY MOTIVATION

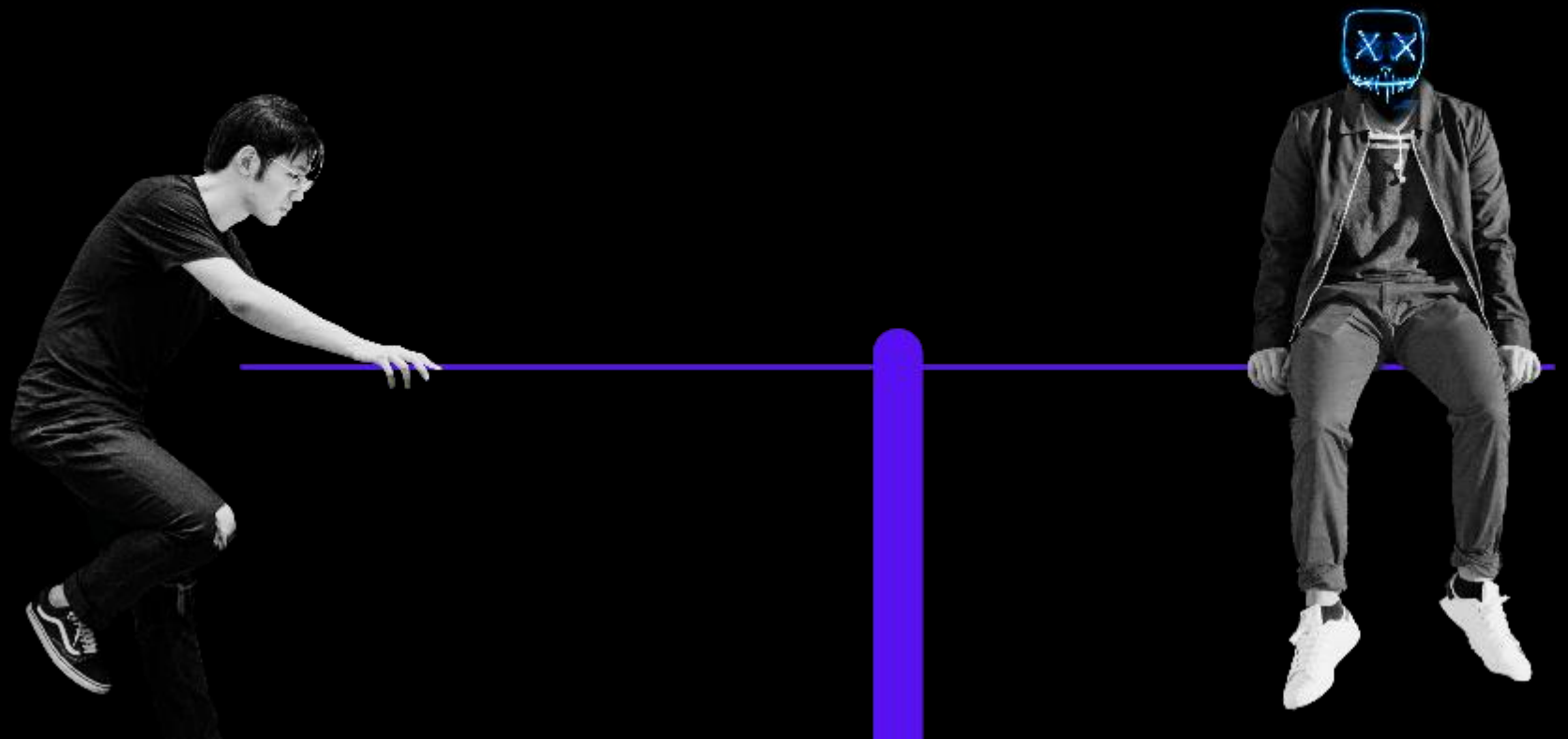
- **Does training make things better?**
- **Challenge and Reporting**
- **Self-Determination Theory**
  - Intrinsic/Extrinsic
  - Autonomy, Competency, Relatedness

GAMIFICATION

- **Game**
  A **playful** activity which requires **action** to overcome a struggle
- **Gamification**
  Using gameplay mechanics for non-game applications

  - The Knife-edge
    - Railroading
    - Difficulty wall
  - Game worlds
  - **Winning** – against whom?

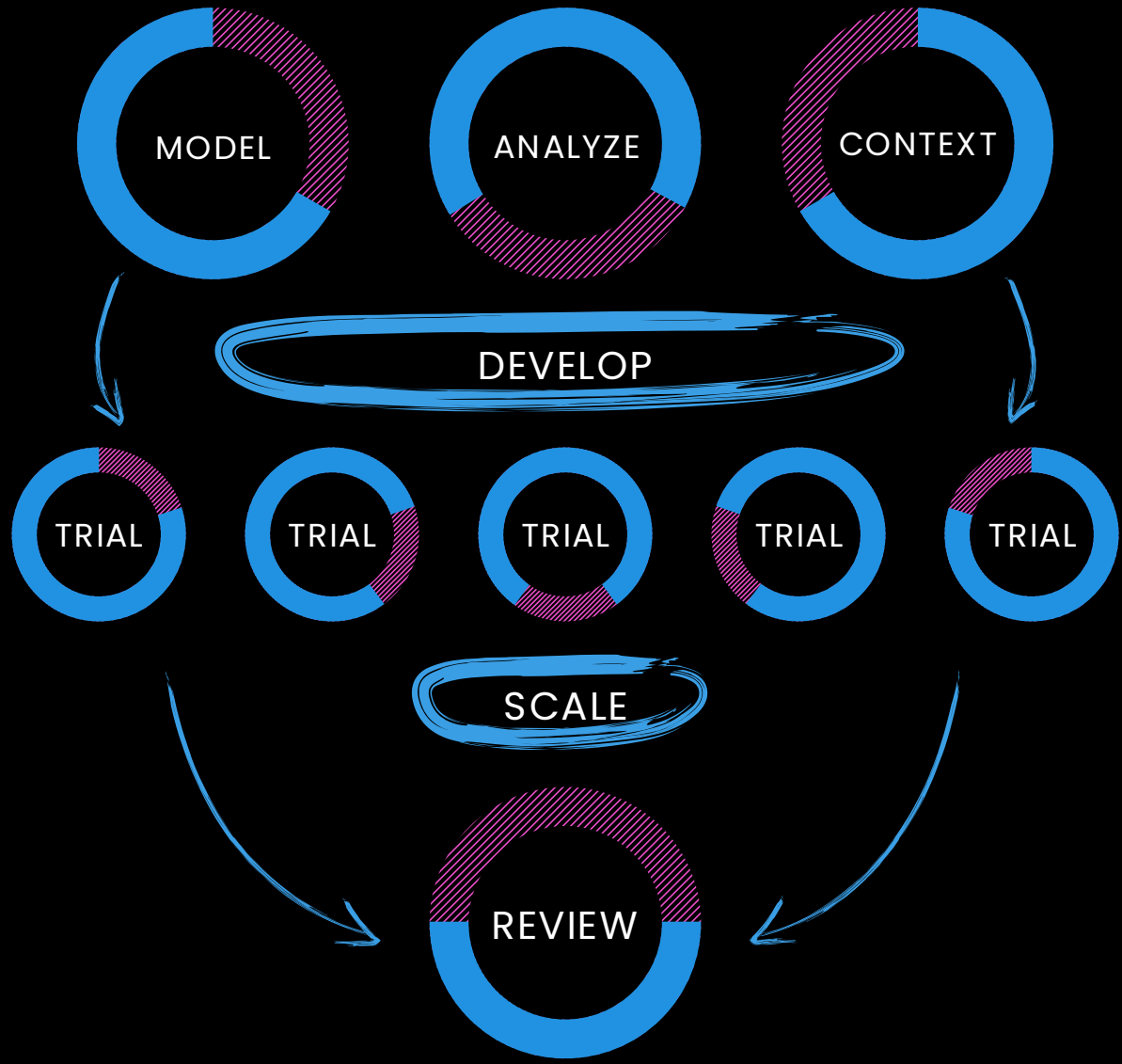
THREAT AVATAR



THREAT AVATAR

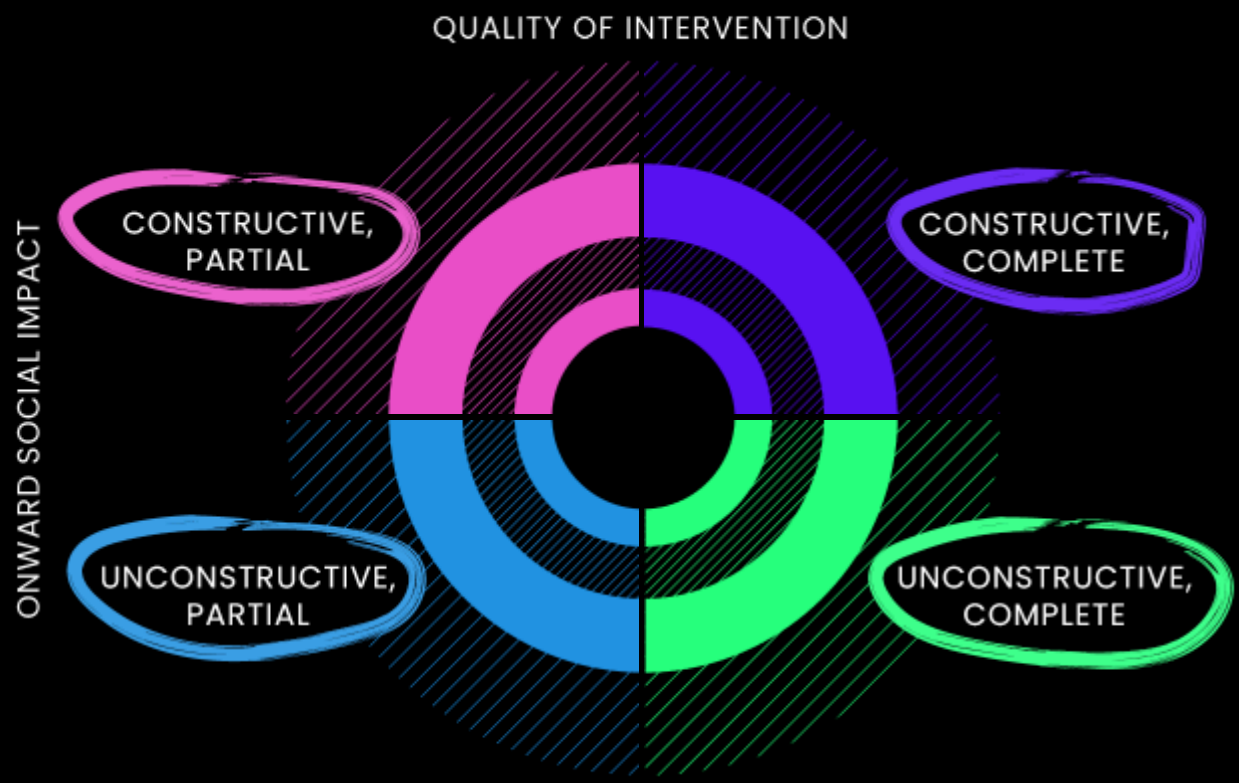
INTERVENTIONS

ONE TARGET AUDIENCE
ONE SPECIFIC BEHAVIOUR
GROUNDED IN PROOF



THE HUMAN NETWORK

WHAT IS *CHALLENGE?*

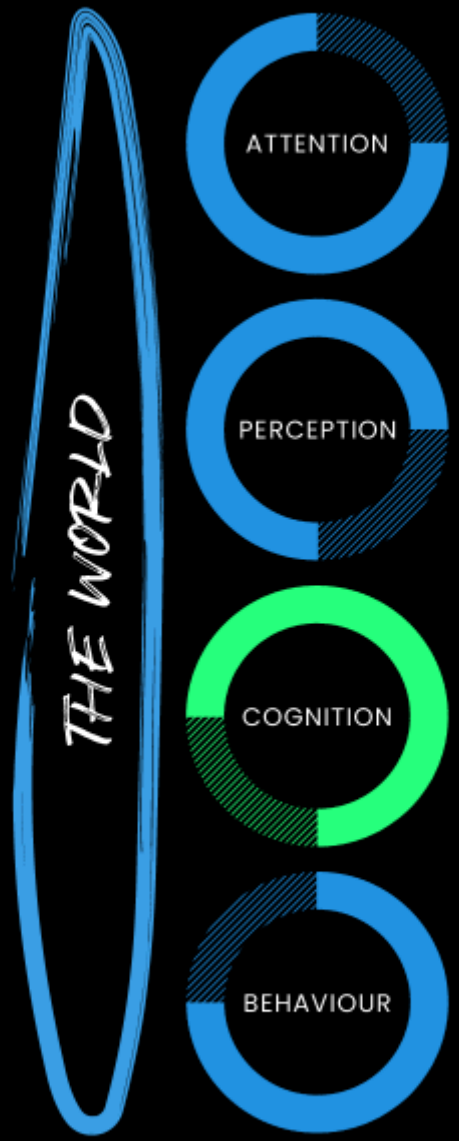


CHALLENGE VULNERABILITY

BEHAVIOURAL OBJECTIVE
REDUCE number of PEDS in IPZs

SUPPORTING BEHAVIOURAL OBJECTIVE
INCREASE peer challenge of risky behaviours

ISOLATE *COGNITION* AND DEVELOP A *SCRIPT*



INFORMATION PROCESSING MODEL

OUTCOMES

"No Mr Cyber Threat"

- 22 exercises
- 850 engagements
- Sensitive sites

"I shouldn't have done that should I? Its so obvious now"

- 77% "engaging and useful"
- 62% "positive sentiment"
- 0% "negative sentiment"

"You won't get me again – go on, try it!"

- 91% would now challenge
- 85% positive sentiment towards "challengers"
- Perceptions are changing

100% OF SITES VISITED HAVE ASKED US TO RETURN TO REPLICATE THE EXERCISE

REMAIN *POSITIVE*

RISKS	CHANGES/ADAPTATIONS	CONTROLS
Psychological Safety	Tailored the serials	Eyes on
Risk to staff...not getting shot/thrown off site	Changed the tees	Authority to Test
Neurodiversity	Built up our kit	Communication
Cause an actual incident		Deebriefing

KEY TAKEAWAYS

We establish a very small game world, very quickly

You can use well research psychological theory to impact risky behaviours in a way that isn't just 'training'

Don't Break People

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THANK YOU

ANY QUESTIONS?