Do games have a place in embedding risk management?

A Case study into games-based learning in the Aviation Sector

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About Me

- 17 years Project Controls & Risk Experience

- Legally trained with MSc Construction

- Certified Fellow of the Institute of Risk Management

- Nuclear, Water, Rail and Aviation Experience

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What is a Game?

What makes a game?

- A goal

- Rules

- Feedback system

- Voluntary participation

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Are games good for us?

- Well – Defined Problems

- Skills as Strategies

- Pleasantly Frustrating

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Why do games get a bad reputation?

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- Films are Escapism

- Books are inspirational

- Graphics are childlike

- Games waste time

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Case Study: Dublin Airport

Case Study : Background

- €3 Billion Portfolio

- 4 Programmes

- Over €200m spend in 2024 increasing to €500m in 2025

- Over 100 live projects over the Airfield, Security & Baggage, Airport Operations disciplines

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Case Study : Background

- Risk Culture Improvement

- Portfolio Risk Management

- AI Services Offered

- Schedule: Quality Checks, Comparisons and Predictability

- Risk: AI QSRA, Predictability and Delay Analysis

- Reporting on demand for both services

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Case Study : Background

Challenges:

- Hybrid Working

- COVID Pandemic

- Turnover of Personnel

- Declining Risk Culture

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Risk Management & Games: Perfect Combination?

Risk Management & Games ?

ISO31000 is basis for every organisation's risk management approach. This provides the framework but is not an explicit guide to its application in real life.

Games based learning can bridge the gaps in knowledge and understanding in an engaging and inclusive way when applied effectively.


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LEVEL 1 : GAMIFICATION

This is a technique where the motivational mechanics of games are extracted and applied to non-game situations to increase engagement

BENEFITS:

This taps into several psychological factors that games activate such as status, recognition and attention. Maslow's hierarchy of needs demonstrates the importance of these factors in the motivation of humans.

An excellent method of rewarding good behaviours

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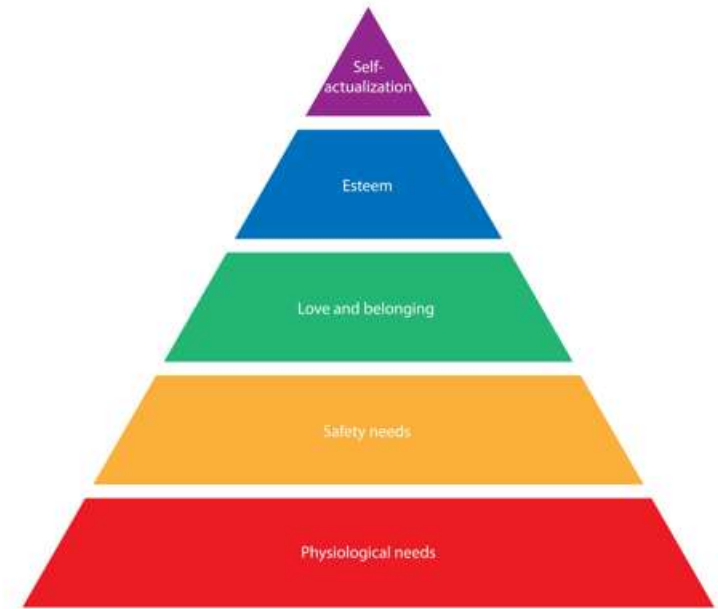
LEVEL 1 : GAMIFICATION

- Each month create a dashboard

- Praise for high achievers

- Support members at the bottom of leaderboard

- Incremental Change tracked

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LEVEL 2 : GAMES BASED LEARNING

Game-based learning can be defined as lessons which are competitive, interactive, and allow the learner to have fun while gaining knowledge. These sessions will likely look like games.

Jenga/Block based stacking game

Quizzes

BENEFITS:

Gives the facilitator an insight into the participants' perception of risk. It's a fun way to break down barriers within the project team and provide challenge within the group.

Great in meetings where strong characters or senior leaders are present to avoid group think behaviours. It can be incredibly liberating as every participant has the same information so not matter where you feature in the organisation hierarchy you input is valued.

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LEVEL 2 : GAMES BASED LEARNING

Undertaking a new project :

1. Define the task about to be undertaken

2. Load up interactive apps (Mentimeter)

3. Analyse Results

4. Create first draft of the register
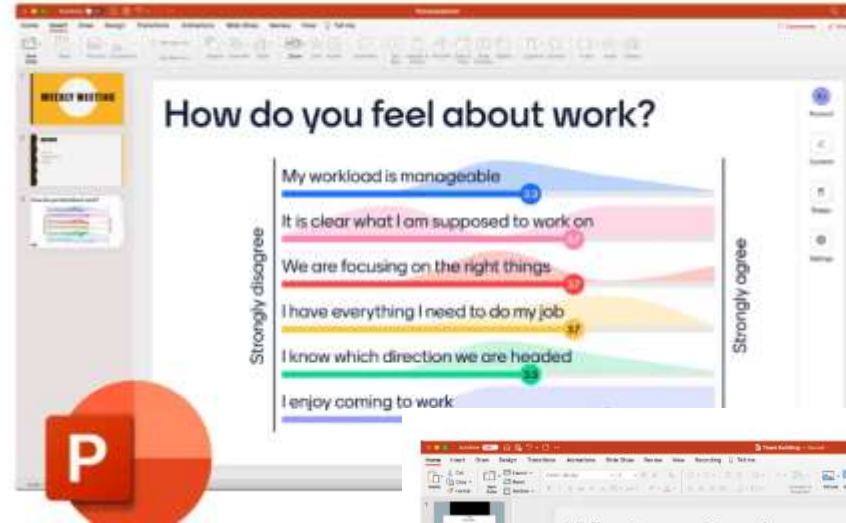
LEVEL 3 : SERIOUS GAMING

A serious game or applied game is a game designed for a primary purpose other than pure entertainment. These likely look like immersive scenarios.

BENEFITS:
They provide a short, intense plunge that assaults the senses and allows project members to experience creative disruption

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LEVEL 3 : SERIOUS GAMING

Undertaking a Pre-Mortem:

1. Define the task about to be undertaken

2. Give each participant a role

3. Play out possible what if scenarios

4. Identify the threats & opportunities

WHAT NEXT?

Remote working?

AI & Machine Learning?
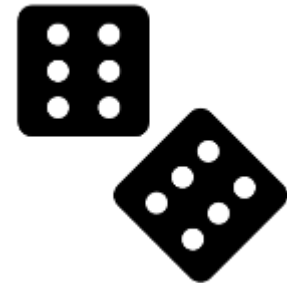
Multi-generational teams?

Takeaways & Considerations

Simple to tips succeed at incorporating risk games into your projects

1. Understand the culture and nature of your organisation

2. Incremental changes can sometimes be more effective than grand gestures to use games based learning.

3. Learn from mistakes, not every game will go as planned.

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Long term benefits

Enables teams the opportunity and space to understand potential risk outcomes in a safe environment

Demonstrates the value of learning from other disciplines to improve the quality risk management support.

These techniques can be used in any industry and break down barriers to success at the same time.

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