



Learning decommissioning through gaming

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Workshop on Current and Emerging Methods for Optimising Safety and Efficiency in Nuclear Decommissioning

The screenshot shows a game interface with a status bar at the top and a dialogue box below. The status bar includes indicators for Progress, Funds, Risk level, Waste management, Stakeholder satisfaction, and Staff satisfaction, each with a corresponding icon and a progress indicator. Below the status bar, there are tabs for Events, Project, Staff, Waste, and Stakeholders. The dialogue box shows a character named Ms. Green, HR manager, asking a question about communication. Three response options are provided below the question.

Status: Progress Funds Risk level Waste management Stakeholder satisfaction Staff satisfaction

Events Project Staff Waste Stakeholders

Ms. Green, HR manager

How shall we communicate to staff that we are shutting down and starting decommissioning?

"They want to shut us down, but I will do my best to change that decision."

"We are going to be shut down, and have to make some changes. We are going to become world-leading decommissioning specialists."

Let's not talk about it yet.

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Many factors impact the success of decommissioning projects

Project funding

Regulatory issues

Public acceptance

Risk level

Efficiency

Technology

Competence

Waste handling
/storage possibilities

Planning

How can you learn about how those factors impact your success?

One possible approach: **Serious games**

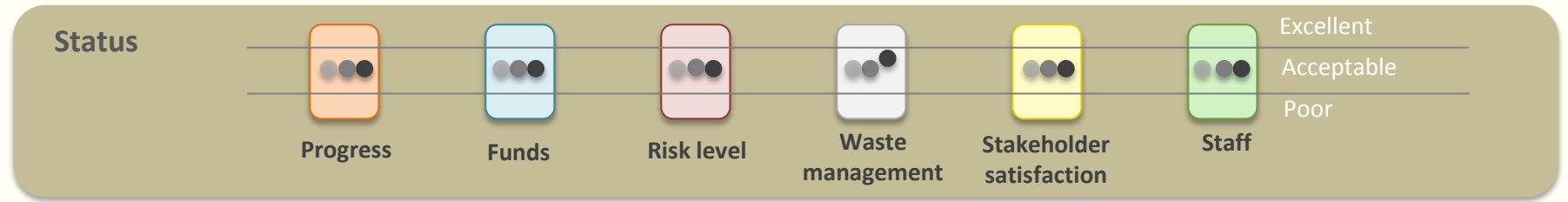
- computer games that are intended to not only entertain users, but have additional purposes such as education and training
- a simulation of real-world events or processes

Game elements to enhance learning:

- Story, cause and effect
- Rewards
- Immediate feedback

Research shows that game-based learning can lead to:

- Increased engagement and improved learning



Events	Project	Staff	Waste	Stakeholders
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Rita Green,
HR manager

How shall we communicate to staff that we are shutting down and starting decommissioning?

"They want to shut us down, but I will do my best to change that decision."

"We are going to be shut down, and have to make some changes. We are going to become world-leading decommissioning specialists."

Let's not talk about it yet.



Jeremy Olson,
Decom. supervisor

We have encountered some piping modifications in the primary circuit that have not been documented. Should we try to recruit retired staff to help us assess the best dismantling approach?

Yes, that is probably a good idea

No, dismantling them cannot be that hard

Potential users

- Decom. managers:
 - Understand the factors that impact decom. projects
- All types of decom workers:
 - Understand the big picture. How does my job relate to the overall project goals?

Next steps

- Develop a more elaborate prototype version
- Evaluate learning effect
 - Compare to other methods (classroom, self-paced powerpoint)
 - **We are looking for organisations who want to test the game**

Thank you!

- Check out the game in the demo session

The screenshot displays a game interface. At the top, a 'Status' bar features six categories: Progress, Funds, Risk level, Waste management, Stakeholder satisfaction, and Staff satisfaction. Each category is represented by a colored icon and a progress indicator. The 'Staff satisfaction' category is highlighted in green, indicating a high status. Below the status bar is a navigation menu with tabs for Events, Project, Staff, Waste, and Stakeholders. The main area shows a dialogue box with a character named Ms. Green, HR manager, asking: 'How shall we communicate to staff that we are shutting down and starting decommissioning?'. Three response options are provided: 'They want to shut us down, but I will do my best to change that decision.', 'We are going to be shut down, and have to make some changes. We are going to become world-leading decommissioning specialists.', and 'Let's not talk about it yet.'

Status

Progress Funds Risk level Waste management Stakeholder satisfaction Staff satisfaction

Excellent
Acceptable
Poor

Events Project Staff Waste Stakeholders

Ms. Green,
HR manager

How shall we communicate to staff that we are shutting down and starting decommissioning?

"They want to shut us down, but I will do my best to change that decision."

"We are going to be shut down, and have to make some changes. We are going to become world-leading decommissioning specialists."

Let's not talk about it yet.

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