

USING SERIOUS GAMES TO IMPROVE PUBLIC COMPREHENSION OF UTILITY FRAMEWORKS

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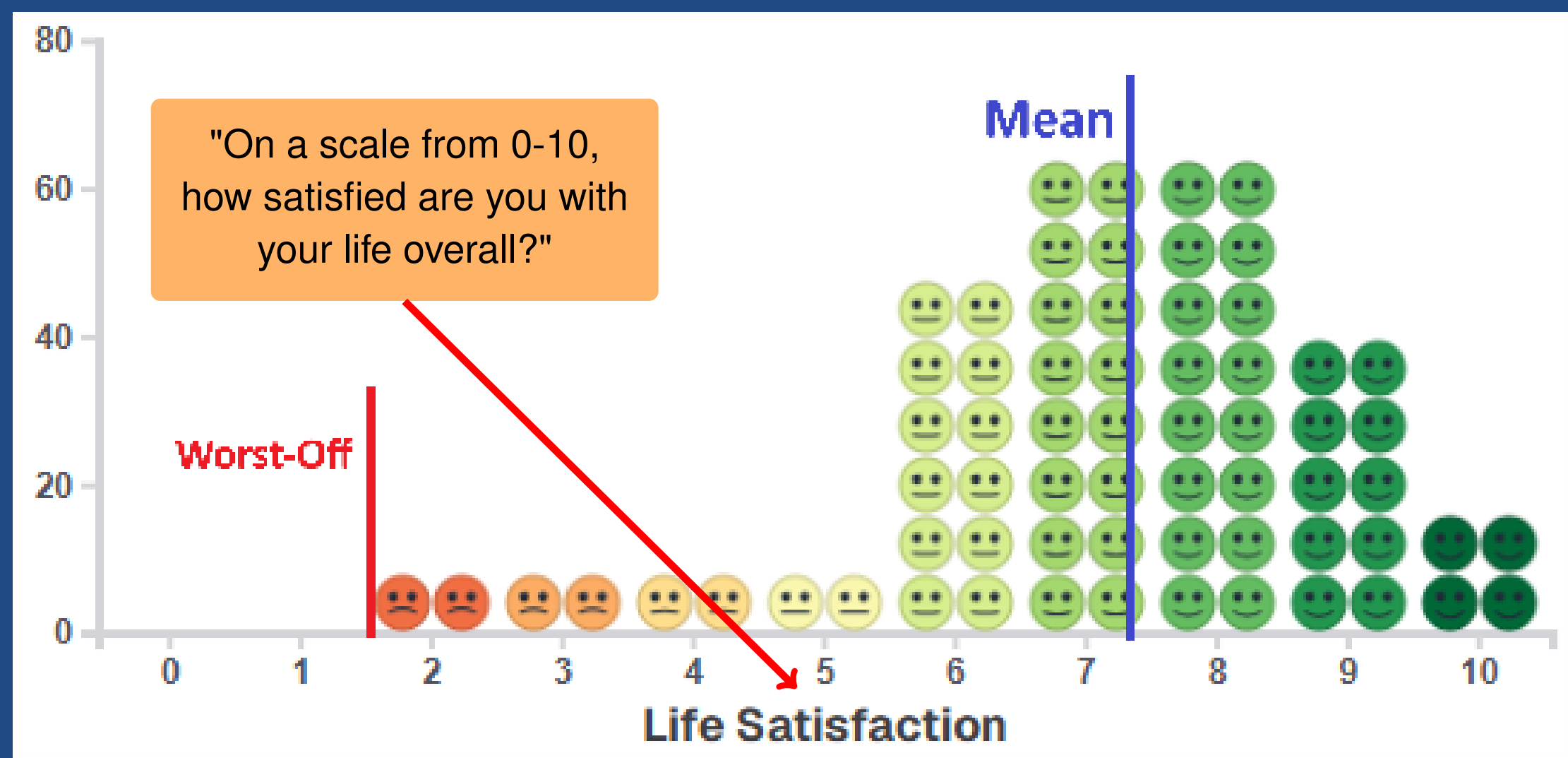
PRIFYSGOL
CAERDYDD

Play the Game: <https://prime-minister-game.pages.dev/>

(Mobile not yet supported)

What Does a Fair Society Look Like?

When building a fair society, should we maximise average happiness or protect the worst-off?
Or should policymaking focus on how we make decisions for ourselves, or others?

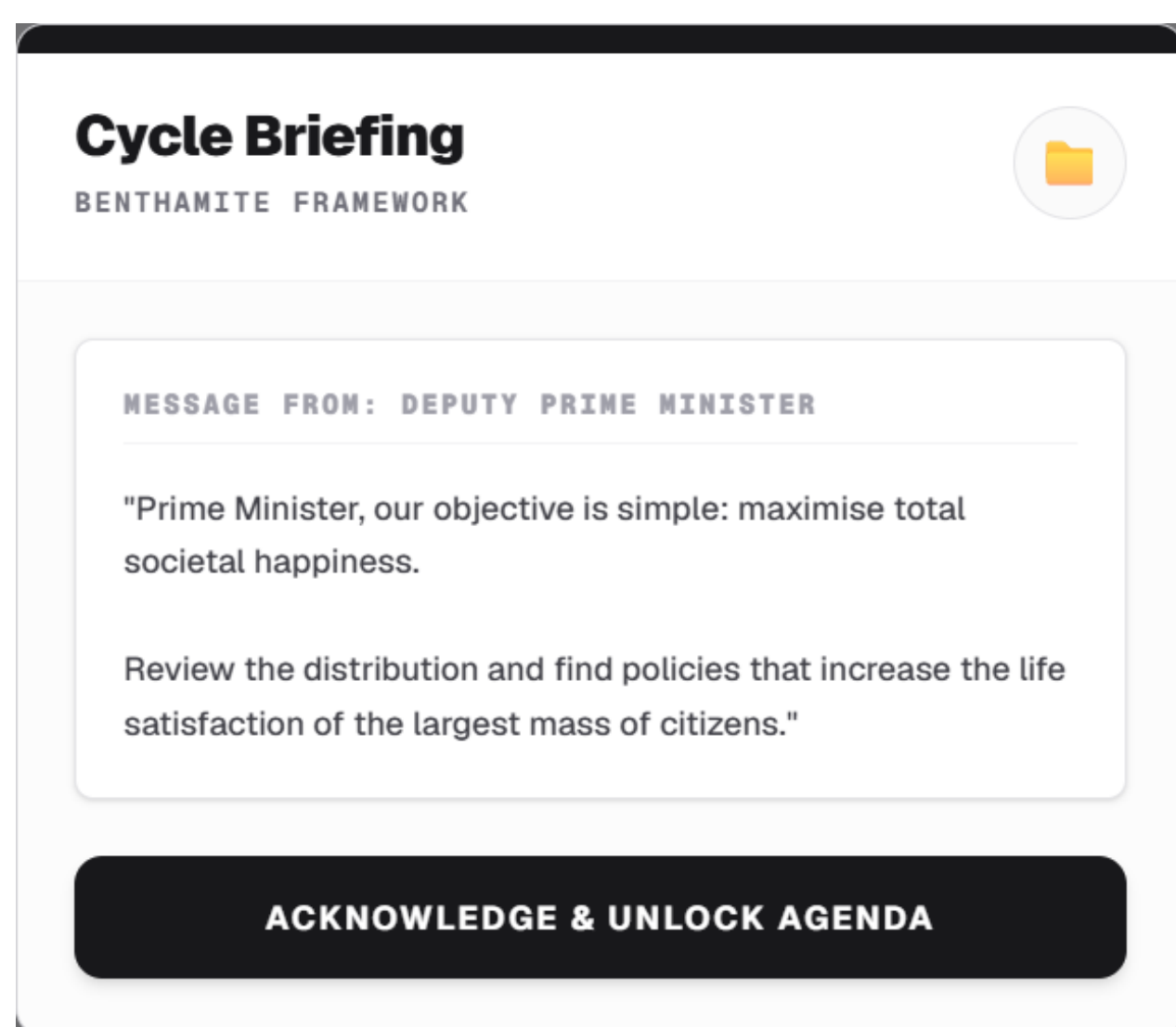


OR



The Prime Minister Game

The player, playing as the Prime Minister, must make decisions that affect the wellbeing of the entire population whilst trying to win re-election.



Statutory Minimum Wage Hike

Forces businesses to raise baseline pay.
Greatly improves the lower-middle distribution, but squeezes corporate margins at the top.

Re-Elected

THE PUBLIC ENDORSES YOUR MANDATE

FINAL APPROVAL

51.9%

REQUIRED: 51.0%

Academic Debrief

BENTHAMITE FRAMEWORK

DEPUTY PRIME MINISTER
Academic Debrief

You successfully increased average Life Satisfaction, but our new data science indicates that relying solely on averages can be dangerous. Click to calculate the averages for these two theoretical societies.



Introduction

Background

- Standard metrics like GDP prioritise economic growth over wellbeing distribution.
- Traditional policy appraisal relies on Benthamite aggregation (maximising averages), concealing deep inequalities.
- Educating the public on inequality-sensitive frameworks is critical for democratic, equitable policy evaluation.
- Serious games are effective at transforming complex and/or abstract concepts into immersive learning experiences.

Objectives

- Communicate the Wellbeing-Equity Trade-Off Model via a game-based intervention.
- Assess if participants can accurately interpret complex wellbeing distributions and utility logics.
- Determine if informed citizens judge utility-based appraisal frameworks as justifiable for governance.
- Determine the effectiveness of the implemented game mechanics in order to better inform future serious game design.

Research

Game-Based Learning

Explaining complex governance systems often causes cognitive overload. The Prime Minister Game counters this using intrinsic integration - embedding learning objects directly into the game's mechanics.

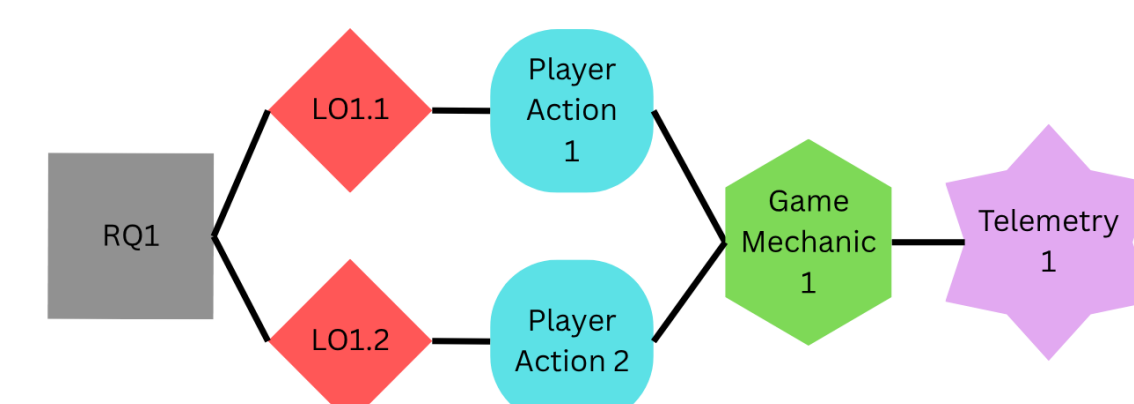
Research Questions

- RQ1 (Learning):** Does gameplay improve distributional reasoning and utility application more effectively than reading?
- RQ2 (Legitimacy):** To what extent do informed participants find utility-based appraisal frameworks viable and democratically justifiable?
- RQ3 (Mechanics):** How do specific in-game interactions and telemetry data relate directly to player learning gains?

Methodology

Study Design

- Approach:** Evidence-Centred Design (ECD).
- Structure:** Between-subjects comparison (Game vs. Reading Control) with within-subjects pre- and post-testing.



Outcomes & Next Steps

Expected Results

- Distributional Reasoning:** Participants will accurately interpret population wellbeing, identifying mean, dispersion, and societal floors.
- Utility Application:** Improved ability to distinguish Life Satisfaction from Utility to anticipate policy support.
- Framework Evaluation:** Participants will confidently justify their evaluations of competing policy appraisal frameworks.

Future Work

- Game Mechanic Evaluation:** Analyse game telemetry to isolate which specific game mechanics and interactions drive the greatest learning gains.

Game Access & References

Play the Game



prime-minister-game.pages.dev

References



harryfranklin-research.pages.dev/poster_references/