

Manuscript No.: IJAR-59192

Title: Simulating Cognitive Bias in Interactive Environments: A Framework for Using Behavioural Simulation Games as Educational Tools.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity	✓			
Significance	✓			

Reviewer Name: Dr. Mithilesh kumar shukla

Reviewer's Comment for Publication:

The paper addresses the challenge of teaching cognitive bias recognition and resistance, highlighting the limitations of traditional passive instruction. It proposes a framework for interactive simulation games that allow users to experience cognitive biases in real-time decision-making, fostering experiential learning. Grounded in psychological and educational theories, the framework maps specific game mechanics to biases like anchoring, loss aversion, confirmation bias, and overconfidence. The paper outlines the necessary technical architecture for building such systems, including decision telemetry and adaptive feedback. While acknowledging that simulations cannot fully eliminate biases, it argues they provide stronger, more durable awareness than passive methods. Ethical considerations regarding transparency and intent in bias simulation are also discussed. The study concludes that interactive games offer a better-matched educational tool for cognitive bias than conventional teaching.

Recommendation: Accept after minor revision, .

Detailed Reviewer's Report

STRENGTHS:

- 1- The paper Addresses a significant educational challenge.
- 2- It Builds on well-established psychological and educational theories like dual-process cognition and experiential learning.
- 3- The study Provides specific mappings of cognitive biases to game mechanics, making the concept actionable.
- 4- It Discusses the necessary technical architecture, such as decision telemetry and adaptive feedback, for reliable simulation and evaluation.
- 5- The paper Raises important questions about transparency and potential misuse of bias simulations, emphasizing responsible design.
- 6- It Combines insights from psychology, education, game design, and human-computer interaction for a multidisciplinary approach.

WEAKNESSES:

- 1- The paper proposes a framework but does not present experimental results demonstrating its effectiveness.
- 2- Limited discussion of user diversity.
- 3- The framework covers several biases, but may not address the full range

.

.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

s