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The Future is Connection:

Collaboration, Creativity and Compassion in a Digital Society

Gamifying responsible investment: Developing ESG literacy through simulation-based finance education

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As environmental, social and governance (ESG) considerations become increasingly central to financial investment decision-making, finance education is challenged to integrate ESG capability development into traditionally quantitative curricula while maintaining disciplinary rigour and industry relevance. In parallel, Technology-Enhanced Learning (TEL) research highlights the value of simulation-based and gamified approaches for fostering engagement, authenticity, and applied learning; however, their application to ESG literacy development in tertiary finance education remains underexplored.

This paper presents a teaching and learning innovation implemented in finance courses within RMIT University's Bachelor of Business and Bachelor of Commerce programs. The initiative integrates ESG principles, including Indigenous perspectives and Reconciliation Action Plan (RAP) considerations, into a low-fidelity stock market simulation using live market data. Students construct and actively manage investment portfolios, evaluating ASX-listed companies using both traditional financial metrics and ESG performance indicators.

Grounded in experiential learning and TEL theories, the simulation creates a bridge between theoretical financial models and authentic investment practice. Students make investment decisions that balance risk, return, and sustainability considerations, positioning ESG as an embedded dimension of financial analysis and valuation The game is played across 10 weeks and aims to help students balance two distinct ways of thinking: reflexive decision-making (System 1), where students chase quick yields based on gut instinct and market hype, versus reflective decision-making (System 2), where they deliberately slow down to weigh ESG factors against risk-adjusted returns. The inclusion of RAP analysis further enables students to critically examine organisational commitments to reconciliation and social responsibility as part of long-term investment evaluation.

Following Landers' (2014) Theory of Gamified Learning, our focus is on using the game mechanics to influence the learning related behaviours of our participants. Left unchecked, financial simulations naturally reward fast, gut-driven trading. To counteract that and build genuine evaluative capability, we treat structured reflection as the essential bridge between active gameplay and deeper conceptual understanding, drawing on Kolb's (1984) reflective cycle. To evaluate whether learners have achieved the target learning outcomes, assessors examine the alignment between each student's longitudinal trading patterns and their written rationale for entering or exiting positions. Rather than judging portfolio return in isolation, assessment focuses on whether students can articulate and apply specific ESG criteria, risk-return fundamentals, and context-specific frameworks (such as Indigenous perspectives on land stewardship and community impact) to justify their buy, hold, or sell choices.

Initial observations from the implementation indicate high levels of student engagement in class with the material. The reflections demonstrate an increased confidence in applying ESG concepts within investment decision-making contexts. Student feedback suggests that the simulation challenged assumptions that ESG integration necessarily compromises financial returns, while enabling more nuanced understandings of risk, value creation, and sustainability trade-offs. Feedback from RAP-informed activities further indicates that embedding Indigenous perspectives supports students' appreciation of ethical responsibility and the social embeddedness of financial systems.

This study contributes to TEL research by demonstrating how simulation-based and gamified learning can operationalise ESG education in finance disciplines. Our approach offers a scalable pedagogical model that connects disciplinary knowledge with ethical reasoning, sustainability literacy, and reconciliation awareness.

Keywords: Environmental, social and governance (ESG), simulation-based learning, gamification, experiential learning, Indigenous perspectives, Reconciliation Action Plan (RAP), technology-enhanced learning

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