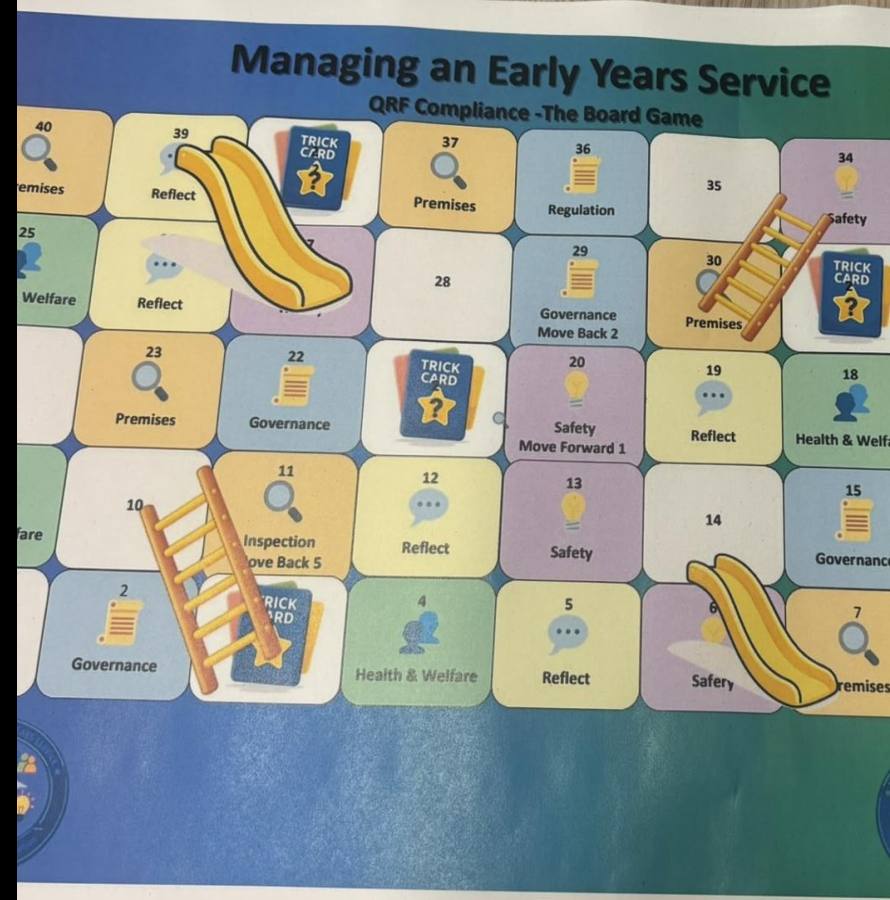


# Playing to Learn: Reimagining Assessment through AI- Supported Board Game Design

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# Emergence of the Idea

- International collaboration with Niagara College
- Exposure to the Playful Learning Conference 2025 held by the [Playful Learning Association](#)
- Game-based teaching in policy & legislation
- Inspired use of Cluedo-style problem-based learning
- Prompted critical reflection on assessment practices in higher education

Playfulness supports curiosity, creativity, and meaningful engagement

Learning through play is:

- Active
- Social
- Iterative
- Meaningful (Zosh, et. al, 2017)

Playful pedagogy repositions learning as:

- Experiential
- Collaborative
- Student-centred

In higher education, play:

- Reconnects learners with disciplinary meaning and identity
- Moves beyond purely instrumental learning (Norgard, 2024)

## Playful Pedagogy in Higher Education



- Play is central within Early Childhood Education:
  - Exploration
  - Interaction
  - Meaning-making
- However, assessment remains:
  - Standardised
  - Text-based
  - Focused on recall
- Traditional assessment:
  - Fails to capture complex competencies
  - Limits demonstration of applied knowledge (Rodriguez-Ferrer et al, 2025)

## The Assessment : Pedagogy Disconnect



- Rapid rise of generative AI in higher education
- Challenges traditional notions of:
  - Authorship
  - Originality
  - Academic integrity
- AI can replicate:
  - Knowledge recall
  - Structured written responses
- Traditional assessments are increasingly vulnerable (Rodriguez-Ferrer et al, 2025)
- Growing need for:
  - Authentic assessment
  - Applied, dialogic, and process-based learning tasks (Kim & Saplan, 2024)

## Rethinking Assessment in the Age of AI





Lecturer-designed board game as summative assessment

AI used as a design partner to:

- Design the board game
- Generate scenarios
- Support complexity and variation

Game design centred on:

- Application of knowledge
- Scenario-based decision making
- Collaborative discussion and reasoning

Assessment embedded within:

- Dialogue
- Interaction
- Real-world problem contexts

# Designing a Playful Assessment

# Playful Assessment in Action

## Student Experience:

- Group-based gameplay
- Scenario-based decision making
- Dialogue and application of theory

## Game Features:

- Multiple pathways
- Collaboration
- Safe failure and retry

## Impact:

- Demonstrates learning beyond recall
- Supports agency and inclusion
- Maintains academic rigor
- Student Feedback



# Student Feedback

*Did you feel more engaged compared to a traditional lesson (e.g., lecture, reading, worksheet)? Why or why not?*

- Yes, definitely more engaged. You don't really speak up in a lecture, it can be very daunting
- Yes, because we talk about the questions in groups
- Yes, definitely, as it was more interactive and I felt I was learning more, as when my teammates gave answers, I could remember them more easily.

*Would you recommend using games like this in other topics? Why?*

- Yes, it can be used for many modules when learning about regulations. It's enjoyable and gets you thinking outside the box
- Yes, I think it promotes teamwork and collaboration with classmates. It is interactive and hands-on, which I find to be very beneficial in remembering information

*How did you like this as an assessment?*

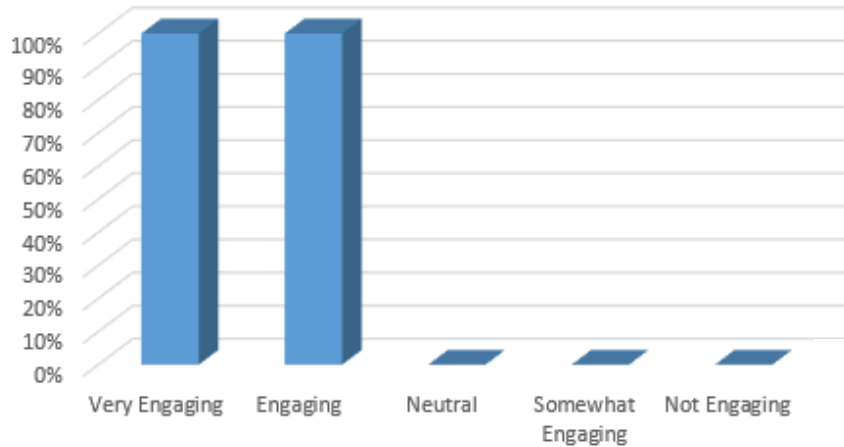
- It's easier to remember information when your having fun doing it
- It is interactive and hands on which I find to be very beneficial in remembering information

made me feel more confident in my knowledge

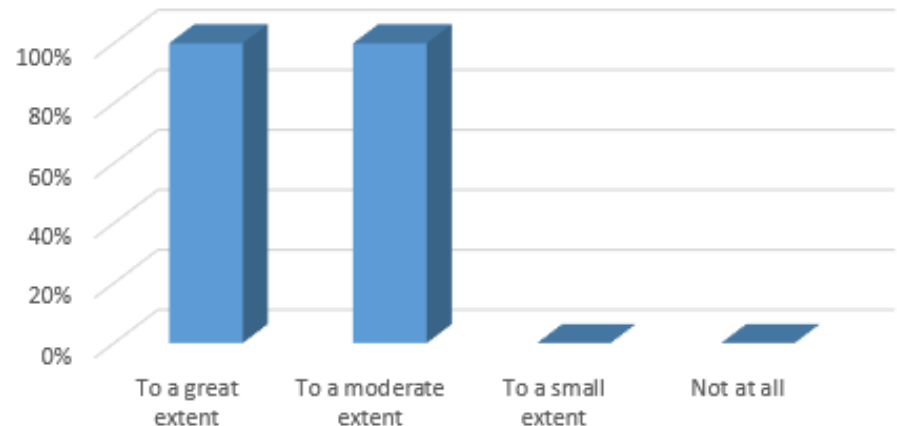


# Student Feedback

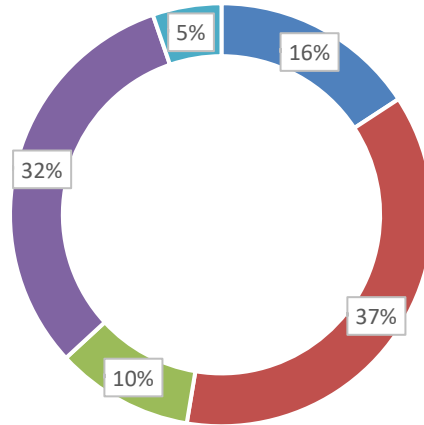
How engaging did you find the board game?



To what extent did the board game help you understand module content?

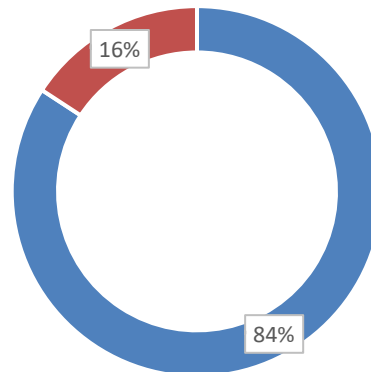


## Impact of the Board Game on Skill Development



■ Communication ■ Teamwork ■ Problem-solving ■ Confidence ■ Decision-making

## Did the game reduce stress compared to traditional assessment?



■ Yes ■ No

I found it very engaging and a fun way to promote teamwork with class mates

Working with a team and helping each other so that we could all finish the game. Also strengthened my confidence that I do know those topics

Easier than doing a written assignment

I liked that we could help each other out and work together

Working as a team and helping each other

We could help each other out if we were unsure, there was no pressure to know the answer on the spot

I liked how it was enjoyable and easy to retain content with the bored game

Working as a team, it felt more relaxed

## What did you like most about using the board game?

That you everyone could help each other if someone was unsure

It felt like less pressure

Working as a team to help each other

It was engaging and challenged your decision making

Fun way to learn and interact with classmates

Easier than doing a full written assessment

How engaging and fun it was!

I thought it was less stressful because we were able to help each other out

Teamwork

# Challenges and Considerations

## Being Put on the Spot

Some participants reported feeling pressured when required to respond immediately to questions in front of peers.

## Game Length

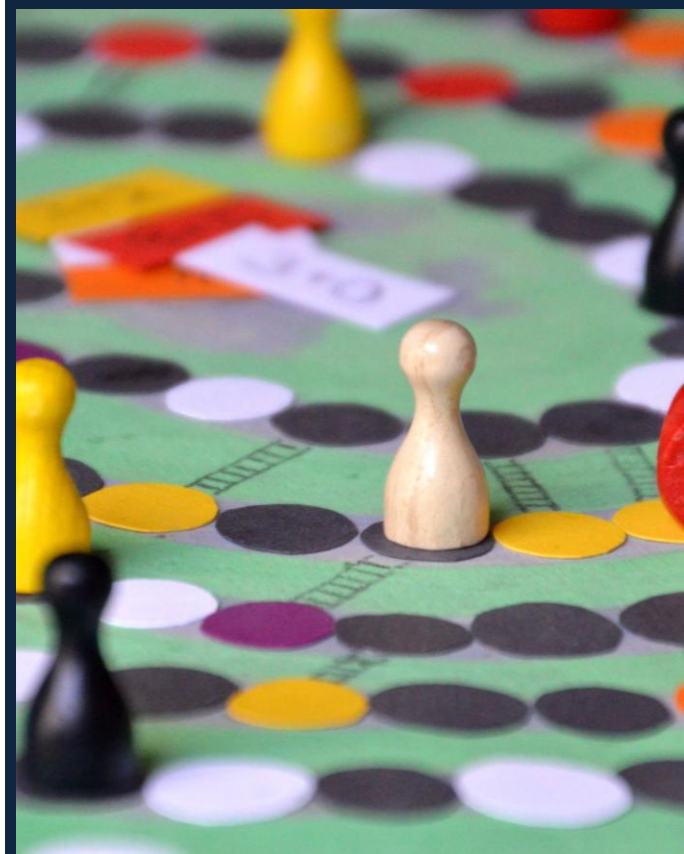
For some participants, the game length felt too extended.

## Variation in Question Difficulty

Differences in question complexity were noted. While some questions encouraged meaningful reflection and critical thinking, others were perceived as either too simplistic or overly challenging

## Recording Anxiety

Where responses were recorded or observed for assessment purposes, some participants expressed increased anxiety.



# Pedagogical Strengths of the Board Game Approach

Alignment of Pedagogy and Assessment	Supports Inclusive Learning	Transferable Across Disciplines
Integrates learning and assessment through real-time discussion	Engages multiple learning styles (visual, auditory, kinaesthetic)	Easily adaptable by changing question content
Encourages application of knowledge rather than passive learning	Encourages participation in a low-pressure, collaborative environment	Promotes critical thinking and reflection across subject areas
Supports authentic and reflective assessment aligned to learning outcomes	Provides alternative ways to demonstrate understanding	Can be used in diverse educational contexts



# Limitations and Considerations

Performance Pressure and Participation	Time and Practical Constraints	Assessment and Authenticity Challenges
Some students may feel put on the spot, impacting confidence	Game length may limit depth of discussion	Difficult to consistently assess individual contributions
Verbal responses may disadvantage quieter learners	Requires careful facilitation to stay on task	Recording or observation may increase student anxiety
Anxiety can reduce depth of reflection	Time to plan and organise both the questions and the design of the game	Risk of prioritising gameplay over critical reflection

Requires thoughtful design and facilitation to maximise learning impact

- The board game approach offers a creative and engaging method to introduce key
- It supports active, reflective, and student-centred learning, aligning with module learning outcomes
- The activity promotes the development of critical thinking, communication, and professional awareness
- However, its effectiveness depends on careful design, facilitation, and balance between engagement and assessment
- Consideration must be given to inclusivity, student confidence, and consistency of learning experience

## Conclusion





Play, when intentionally embedded within pedagogical practice, can transform learning into a deeply meaningful and personally relevant experience, fostering autonomy, creativity, and engagement

(Harvard Graduate School of Education 2021; Play Scotland 2020)

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