

Active learning strategies that work in large classes

How gamification is reshaping e-learning for young learners

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Gamification has become one of the most widely discussed approaches in online learning settings. Educators are incorporating game elements such as points, badges, and progression systems into learning environments to motivate and engage younger students.

In spite of the growing interest in gamification, research and practice remain fragmented as a result. There are many implementations that focus on surface-level engagement rather than deeper learning design. Due to this, gamification and effective e-learning outcomes aren't fully understood.

Drawing on recent research using the Elaboration Likelihood Model (ELM), this article explores how gamification influences learning in e-learning environments and what educators can do to design more effective, meaningful learning experiences.

Gamification works through two learning pathways

The Elaboration Likelihood Model helps explain how learners process information and become persuaded or motivated in digital environments. In gamified e-learning, engagement operates through two distinct routes:

- Central route factors, which support deep cognitive engagement and learning
- Peripheral route factors, which

sustain attention, motivation and participation

Understanding the balance between these two routes is essential for designing effective learning systems, particularly for younger learners in large or online classes.

Designing learning as a structured process, not entertainment

One of the key findings is that gamification isn't about adding game elements to existing content. Learning needs to be redesigned as a structured, progressive process.

Younger learners, in particular, benefit from clear progression paths, manageable challenges, and well-defined goals. Gamification can make skill development more systematic when it's aligned with pedagogy rather than as a decoration.

Practical implications for educators:

- Design gamification as a learning process, not decoration
- Organise complex tasks into smaller, more manageable learning steps
- Delivering structured learning pathways instead of static content
- For each learning activity, specify the learning objectives (Ex: For each learning activity, specify the learning objectives)

In large or diverse classrooms, this

approach reduces cognitive overload and promotes sustained engagement.

The role of technology should be to support, not to dominate learning

There is a common misconception that more sophisticated technology automatically improves learning outcomes in online learning settings.

In gamified e-learning environments, effectiveness depends less on technological complexity and more on usability, accessibility and alignment with learning goals.

Learning analytics and adaptive feedback systems can enhance personalisation, but only when they are meaningfully integrated into pedagogy.

Practical implications

- Treat technology as a facilitator of learning, not the driver
- Don't add badges, points, or leaderboards without a clear learning purpose
- Make systems simple, accessible, and easy to use
- Support progression and understanding with digital tools

Communication and feedback shape learner motivation

In gamified environments, communication is not limited to teacher-student interaction. The system itself becomes an active communicator



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through feedback, cues and progression signals.

Young learners respond positively to immediate feedback, visual progress indicators, and structured reinforcement. When systems rely too heavily on repetitive reward mechanisms, motivation can decline.

In order to improve learning, more effective approaches combine reinforcement with adaptive, meaningful feedback.

Practical implications

- Avoid over-reliance on repetitive reward systems (e.g., points-only models)
- Combine visual progression tools (levels, badges, progress bars) with instructional feedback
- Design feedback that encourages

reflection, not just performance tracking

Building engagement through social learning

Motivation in gamified systems is also strongly influenced by social interaction. Collaborative tasks and shared learning goals help create a sense of belonging, particularly in large classes where students may, otherwise, feel disconnected.

At the same time, purely competitive systems can disadvantage lower-performing students and reduce long-term engagement.

Practical implications

- Incorporate collaborative learning activities and group challenges
- Design shared goals that encourage collective achievement
- Balance competition with cooperation to support inclusivity
- Allow individual learning pathways within group-based structures

Rethinking gamification in higher education

Based on this research, it is evident that gamification is not intended solely to make learning more enjoyable. In other words, it is about designing learning environments that are structured, meaningful and engaging in order to encourage motivation and understanding.

Central route processes support deep learning through structured design, clear objectives and appropriate challenge levels. Peripheral route processes—such as feedback, social presence and visual engagement—help sustain motivation and participation over time.

Gamification enhances learning experiences in large and diverse classrooms when these two elements are balanced effectively.

Looking ahead

The future of gamification in e-learning should focus on developing more integrated and consistent approaches.

It is particularly important to understand how different learner groups respond to gamified systems and how design choices influence long-term outcomes.

It is not simply about increasing engagement - but also about ensuring that engagement leads to meaningful learning as universities expand online and blended learning.

See the full research article link here;

<https://www.emerald.com/yc/article/22/3/480/386707/The-e-learning-persuasion-through-gamification-an>

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