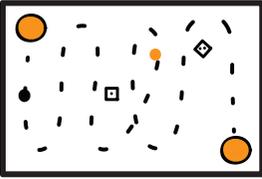


GAMES AND LEARNING

Using games can make learning more engaging while turning mistakes into learning opportunities.

Quest Alliance is a non-profit trust working to bridge the education and skills divide by enabling self-learning for young people 10-35 years old.

Quest is fuelled by research, strengthened by partnerships and driven by innovation and technology.



How are games linked to learning?

While games and studying have traditionally been viewed as almost opposites, the element of play can make learning a much more interesting process by:

- Allowing **learners to fail** and learn from mistakes without judgment.
- Encouraging **peer learning** through the game.
- Creating a space for learners to **ask questions.**
- Promoting **experiential learning.**

Games and play are great to use when the focus is on learning through doing, and when there are a lot of unquantifiable or intangible elements involved. For instance, if the aim is to recreate the experience of an industry worker and their career paths, instead of reading about it, learning about it through a game can be a lot more effective in learning about all the small elements of this process.

What steps should I follow to begin incorporating games into my curriculum?

One possible framework to use while designing a game to promote learning is Kolb's Experiential Cycle, which includes the following steps:

1 Concrete Experience

In this stage, the focus is on the learner actually doing an activity or going through an experience.

2 Reflective Observation

Here, the learner reflects on their experience and reviews it in detail.

3 Abstract Conceptualisation

The reflection and review allows the learner to draw conclusions and learn from the experience.

4 Active Experimentation

This happens at a later stage when the learner plans and tries out what they have concluded from the experience.

Two important things to remember while conceptualizing a game for learning is to **not focus on a right or wrong conclusion**, and to **balance simplicity with realism** while creating scenarios to avoid overwhelming the learners.

What are some potential pitfalls to this process?

There are some points to keep in mind while incorporating games and play into a learning curriculum:

- **Ensure that it is the right medium.** Games and play are ideal for promoting learning where experiential learning is key. However, certain objectives may be met better through a different medium. For example, learning about the condition of sanitary workers in a city may be done more effectively through a film or documentary.
- **Separate objectives of the game and objectives in the game.** While our learning objectives as an educator may be to inculcate empathy or promote critical thinking in learners, it is important that objectives within the game are not overburdened with these broader goals. This will help the players go through a more authentic experience.
- **Use domain experts while designing a game.** While Kolb's Experiential Cycle or similar frameworks may be used to conceptualize the experience at a broad level, it is important to engage domain experts while actually designing a game to ensure that complexity levels and other subject matter expertise are employed effectively.
- **Address language barriers.** It is important to make sure that playing the game does not lead to barriers of language among the

players. One way to do it is to keep the game multilingual. Another great way is to leave scope for the game to evolve its own language.

- **Preparing to transform existing pedagogy.** Introducing games into the curriculum can involve rethinking the traditional teacher-student relationship, coming up with newer ways of evaluating learners, assisting educators with the technical aspects, and so on. These changes need to be planned for and accommodated.

What are some limits or challenges in this process?

Some challenges may arise when incorporating games into the learning curriculum.

- Games are ideal for teaching **procedural knowledge**. Facilitating fact-based or theoretical knowledge may not be best suited to this format.
- **Potential disruption** in the classroom. Games should be designed and facilitated in a way to minimize disruptions and make it an effective learning experience.
- Games can **encourage competitiveness**. Gamification principles or the game itself should be conducted in a way not to encourage individual competitiveness but make it a shared learning experience for all participants.

Is there an example or case study that has successfully used this process?

In 2012, Bangalore moved to a decentralized system of waste management to deal with its rising garbage piles. The idea was to compost organic waste and route dry waste to the Dry Waste Collection Centres (DWCCs) in different wards.

Two big challenges in rolling this out was citizens' apathy and their lack of knowledge.

To address this, a game called **Rubbish** was designed where players took on the role of DWCC managers and worked strategically to avoid filling up a landfill, which would lead to everyone losing.

The game was played with school children ordinary citizens, DWCC workers, and other groups. It allowed the players to understand how garbage management was a collective issue and empathize with DWCC workers more deeply.

What are the value propositions of introducing games into the curriculum?

Learners:

- Be more interested in the learning experience.
- Find a safe space for making mistakes and learning from them.
- Find a forum to ask questions and learn without being judged.

Educators:

- As a creative way of facilitating teamwork, problem solving and such intangible skills.
- Keep their learners engaged throughout.
- Discover new ways of acknowledging and rewarding learner effort.

“Learning by failure happens because there is no stigma associated with failing in a game, as opposed to failing in an exam. There is more room for experimentation.”

- Bharath Palavalli, Fields of View



www.questalliance.net

#108 , 2nd Main, 6th Cross
1st Block, Koramangala
Bengaluru 560034
Ph +91 80 4098 3304

Email: info@questalliance.net