



# GAME-BASED LEARNING

**Redefining Engagement  
in eLearning**

|  |    |
|--|----|
| 1. Introduction.....   | 3  |
| 2. Defining game-based learning.....                         | 4  |
| 3. Game-based learning: A new dimension of engagement.....   | 5  |
| 4. Implementation of games in eLearning and its effects..... | 6  |
| 5. Raptivity support for game-based learning.....            | 7  |
| 6. Raptivity games samples.....                              | 8  |
| 7. Conclusion.....   | 10 |

Today, varied kinds of learning processes are being employed in classrooms. In the earlier days, classroom style education, where students had to physically attend classes for every subject, was considered the best. At the end of the term, students were subjected to a series of tests that gauged their learning and retention levels. Time has revealed that periodical tests and exams do not effectively assess a student's grasp of a subject and its application. Conventional methods of imparting education are being replaced with high-tech tools and virtual worlds to educate students on an interactive platform. This shift has been happening at a steady pace.

Games contribute majorly towards the interactive experience of the learner. Games have proved to be more engaging and interactive than conventional methods. In a game, the learner is occupied from start to finish of the session, unlike regular classroom sessions. In the age of rapid eLearning, the challenges of conventional classroom-based learning have been overcome by games with rapid agility.

Learning games are being used to relax learners and teach them complex concepts effectively in trainings. 'What makes games so engaging and interactive?' is an oft-asked question. The answer to this is simply the in-built learning design. Studies have also revealed that students get more motivated and immersed into games as compared to other classroom activities. Game-based learning is a novel and interactive approach to teaching and learning. This makes it a complete learning package for learners, irrespective of their age.

## Definitions

Wikipedia: "Game-Based Learning (GBL) is a branch of serious games, which deals with applications that have defined learning outcomes. Generally, they are designed to balance the subject matter with gameplay. They enhance the ability of the player to retain and apply said subject matter to the real world."

Spitz (2011): "Connect and engage with audiences."

So, what does "game-based learning" actually mean? Game based learning is about understanding your users and creating value for them by providing a memorable journey in the game environment. For example, role-playing games enable students to experience and visually understand the world from someone else's eyes. Online social games present real-world problems and raise awareness about them within the game. Game-based learning is appealing to teachers as it provides students a safe place to learn from their failures.





# Game-based learning: A new dimension of engagement

The game-based learning concept inspires the application of game mechanics to things that are usually not seen as a game. In fact, it assists educators in persuading or motivating their learners to perform and understand complex to simple topics with ease, in less time. Game-based learning has been proven to be very powerful in engaging the learner's attention for a longer span of time. Game-based learning is not only about converting things in the real world into games but also using the characteristics of game mechanics and applying them to the real world.

Game-based learning allows for the creation of a world for the learners where they are free to analyze, plan and experience things without any difficulty. It enables educators to create a representation of the lesson to be taught, which is 'in action' and naturally more edutaining, unlike normal classroom lectures.

For instance, Teed (2004) suggests that there are several elements that define an activity as a game:

- **Competition:** The score-keeping element and/or winning conditions motivate players and help assess their performance. Players don't necessarily compete against each other. Actually, a lot of games have players working as a team to overcome obstacles built into the game.
- **Engagement:** Learners get so engrossed into the game that they do not want to stop until the game is over. Researchers term this phenomenon as "intrinsic motivation" and attribute it to four sources namely - challenge, curiosity, control and fantasy.
- **Immediate Rewards:** Learners get excited when they win or get points. Sometimes, even simple or analytical feedback motivates them to play the game once again.

Game-based learning has raised the bar when it comes to assisting the learner's development using novel interactive methods. In reality, the combination of instructional design and multimedia has stimulated the creation of exciting gaming environments for engaging the learners with ease. Learners can play the game multiple times to master it and at the same time revise the lesson taught in the game. Retention of the lesson taught is taken care of without any difficulty.

eLearning has been the backbone of today's learning scenarios and its enhancement to meet learner demands is critical. A normal eLearning course does not promise to be engaging or interactive, which affects the motivation level of the learners. This is where game-based learning comes in to make eLearning more engaging and highly interactive.

The concept of game-based learning, being highly engaging, blends well with the current eLearning curricula making them more interesting and fun-filled. Games made an advent in eLearning a long time ago with the use of narrations and storylines, but that was not enough to engross a learner for long.



Why games-based learning scores over traditional learning:

|  | Traditional Learning | Games Based Learning |
|--|----------------------|----------------------|
| Cost Effective                                       | Yes                  | Yes                  |
| Low physical liability                               | Yes                  | Yes                  |
| Standardized Assessment using comparisons            | Yes                  | Yes                  |
| Highly Engaging                                      | No                   | Yes                  |
| Easy transfer of knowledge to real world environment | No                   | Yes                  |
| Immediate feedback in response to mistakes           | No                   | Yes                  |
| Learning pace tailored to individuals                | No                   | Yes                  |

*“Our training group does quarterly satisfaction surveys for our internal customers (sales, marketing, engineering, product support etc) and our scores has risen dramatically since we launched our learning resource site with the Raptivity games. Many folks commented specifically on the games as a fun way of transferring knowledge. This product purchase has really shown an ROI for our training team! I am flattered to be referenced as an extremely satisfied customer!”*

Mary E. Coughlin

Global Clinical Services, Philips Children's Medical Ventures

Raptivity® is a first in class interactivity builder which allows an instructional designer, course developer, trainers and faculties to quickly and easily create engaging learning interactions. Raptivity offers a library of learning game interactions combining learning with fun. These games can be easily customized with no programming knowledge.

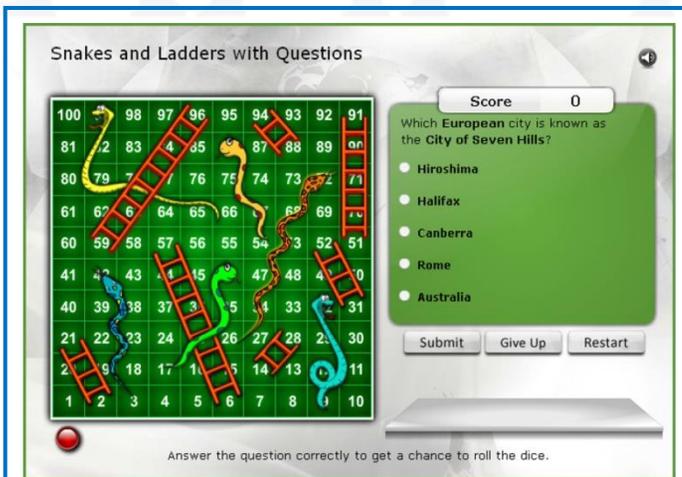
Check out some interesting game samples from Raptivity



Spin the Wheel: An interactive game that can be used to assign diverse variety of questions in one assessment.



Slot Machine: It is based on the theory of positive reinforcement. It can be used to motivate the learners.



Snakes and Ladders with Questions: An exciting game with a perfect blend of fun and learning. It can be used as positive reinforcements.



Fun Crossword: A much played game; can be used to help learners recall one correct word specific to the clue.



Tic-Tac-Toe with Questions: A learner identifies with this game easily. It can be used in education as well as corporate to reinforce a learning concept



Light and Sound Memory Game: Energize the learners with this game. It requires spontaneous reaction, so for learning content which requires due concentration, this interaction fits just perfectly well

To know more about Raptivity games, [click here...](#)

Games-based learning in eLearning encourages self-reliance and self-determination in terms of a learner's ability to make progress within a demanding but incrementally staged environment. Be it a classroom, a cafeteria, a meeting room or a training area, games have excelled in the messaging that needs to be delivered. Practically, it can be seen that the level of engagement and interactions increases with the involvement of games in a module. Game-based learning also caters to various human motivations such as competition, reward etc.

[Raptivity](#), with its wide range of games-based interactions, has taken games-based learning a step ahead to create a whole new experience for the learners and trainers.

In a nutshell, gamification can be termed as the new dawn to the level of interactivity that the eLearning and mLearning worlds are looking into.

#### References:

<http://jhamari.tumblr.com/post/33158604130/gamification>

<http://www.quora.com/What-is-a-good-definition-of-gamification>

[http://en.wikipedia.org/wiki/Educational\\_game#Game\\_based\\_learning](http://en.wikipedia.org/wiki/Educational_game#Game_based_learning)