Gamification

What is it?

"Gamification is the use of game mechanics and game design techniques in non-game contexts. Typically, gamification applies to non-game applications and processes, in order to encourage people to adopt them, or to influence how they are used. Gamification works by making technology more engaging, by encouraging users to engage in desired behaviors, by showing a path to mastery and autonomy and helping to solve problems."[1] Gamification can be particularly effective when applied in a learning context.

How do I start?

Interactivity and feedback

One of the cornerstones of any successful game is interactivity.[2] The engagement level produced by interactivity depends on a number of factors, including the sophistication of the mechanics, the appropriateness of the mechanics to the content, and the challenge of the cumulative experience.

In a vigorous exchange, the challenges presented to a player provide an opportunity to achieve specific goals within the game. When designing challenges, Brenda Enders suggests these best practices:[3]

Image Source: www.learninginfo.org

- Configure your challenges based on the actions and behaviors that you're tracking.
- Reward your learners for completing challenges and achieving the designated goals. Make sure that the rewards you give your learners are meaningful to them.
- Vary the length, difficulty and completion time of your challenges.
- Challenges can be heightened by generating a sense of urgency, such as placing time constraints on the interactivity, just as with real-life deadlines.

Risk taking

Good video games lower the consequences of failure; players can start from the last saved game when they fail. Players are thereby encouraged to take risks, explore and try new things. In fact, in a game, failure is safe.

Challenge and consolidation

Good games offer players a set of challenging problems and then let them solve these problems until they have virtually routinized or automatized their solutions. Then the game throws a new class of problem at the players, requiring them to rethink their now taken-for-granted mastery, learn something new and integrate this new learning with their old mastery. In turn, repetition consolidates this new mastery (with variation), only to face another challenge.

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[1] Mashable Definition – http://mashable.com/category/gamification/
[2] Interactivity involves the communication or collaboration of people (Encarta Dictionary)
[3] Enders, Brenda. (2013). Gamification, Games, and Learning: What Managers and Practitioners Need to Know. *The eLearning Guild*.

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Important Tips[4]

Elevate "freedom to fail" interactions by:

- Providing positive instructional feedback when learners fail on the first attempt; giving opportunities to try again; and on a larger scale, providing the opportunity to retake the training until they have achieved the goal and mastered the content.
- Creating a point category tied to how well the learner is meeting the stated goals of the learning.
- "Gamification can use player competition and rewards for accomplishing desired tasks in order to more fully engage participants in a process," says Michael Bell, Chief Knowledge Officer at Kennedy Space Center. [5]

An example:

NASA@work is a platform that provides the opportunity for obtaining solutions from employees across the Agency for solving important internal business challenges. For each challenge, the "Challenge Owner" may select up to two winners from the submissions received from solvers. Winners can be Civil Servants or Contractors, and awards are determined based on a documented Reward System. A NASA@work challenge seeks ideas on how to promote knowledge sharing through a knowledge sharing contest. [6]

How can I learn more?

- **Gamification Expert Discusses Creativity and Innovation** https://www.youtube.com/watch?v=ZZvRw71Slew

- **Gamification News & Info** http://www.gamification.co/channel/government/

- **"For the Win" Authors Discuss Gamification** http://wdp.wharton.upenn.edu/book/for-the-win/?utm_source=Coursera&utm_medium=website&utm_campaign=forthewin

- **Five Easy Steps to Building a Network Profile** http://www.designdamage.com/from-social-networking-to-profile-building-5-easy-steps/#axzz3IgPMQFXy

- **NASA@Work** https://www.nasa.gov/coeci/nasa-at-work/

- **Gamification to Improve our World:** https://www.youtube.com/watch?v=v5Qjuegtiyc

- **"Game On For Knowledge" Blog**: http://km.nasa.gov/game-on-for-knowledge/

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[4] Ibid
[5] NASA CKO Website. (2014). "Game On For Knowledge" http://km.nasa.gov/game-on-for-knowledge/
[6] Ibid