GAMIFICATION AND GAMES-BASED LEARNING

WHY USING A GAMING APPROACH IN LEARNING?

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BASIC DEFINITIONS

Game-Based Learning is the integration of gaming into learning experiences to increase engagement and motivation.

Gamification refers to the use of a pedagogical system that was developed within gaming design but which is implemented within a non-game context.

SUPPORTING THEORY

The link between learning and playing is longstanding and in the 20th century theorists

Jean Piaget and Leonard Vygotsky

have argued that play

is a crucial component of cognitive development

from birth and through adulthood

(Piaget 1962; Vygotsky 1962).

LAST YEARS IN GAMIFICATION

The potential benefits of applying gaming concepts in non-gaming contexts was articulated in the term "Gamification" which became popular in the mid-2000s (Marczewski 2012).

The concept had previously been used by commercial organisations to incentivise customer behaviour using gaming approaches (e.g. frequent flyer-programmes and branded rewards cards).

Initial Gamification practice focused on the mechanics of gaming and specifically the application of rewards systems; points levels badges leaderboards and onboarding

SYMBIOSIS OF LEARNING AND ENJOYMENT GAMIFICATION

The *Gamification* has been definitively seen as a pedagogical discourse rooted in game design in 2014 (Tulloch)

Games have a number of common characteristics that can be used to create effective learning environments.
They include:

1. A Complex environments where players are expected to make decisions and problem-solve in increasingly difficult circumstances.

SYMBIOSIS OF LEARNING AND ENJOYMENT GAMIFICATION / 2

2. Experimentation and risk taking in encouraging players to try out alternative courses of action and experience a range of different outcomes.
3. Narrative and thematic threads encourage players to take on the identity of a range of characters to build a story around these characters and interact socially with other participants

Gamification recognises these characteristics as opportunities to improve intrinsic and extrinsic motivation engagement and to ***change behaviour***. A cope component of games is that they are fun and provide a form of "***edutainment***" for participants.

GAMIFICATION

Components of gamification include points systems, badges, leaderboards, discussion boards, quizzes and classroom response systems.

1. points may come with academic rewards (extra week for an assignment);
2. badges can be given if students reach a certain success level;
3. points trough classroom response systems like Kahoot or Top Hat can encourage participation

GAME BASED LEARNING

Game-Based Learning is THE USE OF a **full-fledged game** designed to help meet a learning outcome

Game based Learning introduces fun and focus (***structure*** and ***goals***) into learning and can be a powerful motivator if designed with both intrinsic and extrinsic (rewards systems) motivation in mind.

In game-based learning the game characteristics and principles are embedded within learning activities. The learning activities ***promote*** student engagement and motivation to learn

GAME BASED LEARNING /2

Game based learning is also an active learning technique where even commercial games may be used to ***enhance*** student learning.

The learning comes from playing the game and promotes ***critical thinking*** and **problem solving** skills.

The ***debriefieng*** at the end of the game is necessary in order to evaluate the learning outcomes and make effective the learning process.

Game based learning can be accomplished with simulations that can allow students to experience the learning firsthand.

GAMIFICATION & GAME BASED LEARNING

Foundations of Game-Based Learning – Plass, Homer, Kinzer

Difference between Gamification and Game-Based Learning:
Karl Kapp : https://youtu.be/kHn0Maj8ygs

LET'S GET SOME EXPERIENCES /1 (LEARNING BY EXPERIENCE)

1. Enter Cisco learning environment (ITE sap 2023) (5')
https://www.netacad.com/portal/course/2979301

2. Go to module 8.2.2 (video) – have a look to this video (10' minutes maximum.. Maybe you can skip… something)

3. Read the passages for conversions 8.2.3 (2' maximum)

4. Take time to make activities of conversions (5' for each)
8.2.4 – 8.2.5

5. Take time to play with conversions (Cisco binary game 8.2.6)
(15' to reach at least the third level…)

LET'S GET TWO EXPERIENCES /2 (LEARNING BY EXPERIENCE)

General access to cisco learning binary game

https://learningcontent.cisco.com/games/binary/index.html

DEBRIEF /1-22

Go to https://rb.gy/io8d7k

Let's have a critic time to meta-think of the elements

1. What is the meaning of the score?
2. What is the meaning of the 'help' ?
3. How do you feel when you succeed in finding a solution?
4. Can you feel yourself more confident as you go on in the game?
5. What do you think about your emotional response to the success or insuccess?
6. Do you think you applied a strategy to '***win***'? If yes Which one?
7. Which was the best way to learn binary conversion?
8. Everything else you would like to share !

DEBRIEF /2 -10 MINUTES

Go to https://rb.gy/dn27gp

Let's have a critic time to discuss with other learners

1. What would have you learned if not already known?
2. What the best advantage of choosing a method ?
3. Which method did you prefer? Why?
4. Do you think you can use in the future this game or gamification?
5. Everything else you would like to share !

Let's share with anyone your final impressions!

GO TO menti.com and write down in five words/short phrases… your experience /impression using the code 6117 6143

Thanks for your participation! We will be waiting for you as ***new*** and ***innovative*** teachers!

Last 3 things you can face when you will have time:

a) digcomp edu (european digital competences for educators);
b) Digcomp v2.2 for eu citizens (can you take the test https://www.digcomptest.eu/
c) A book (in Italian! You could help i ntranslation….): Didattica Ludica di A.Ligabue