Introduction to the Gamification Course

Games-Based Learning & Gamification in 3D Virtual Learning Environments

# COURSE OVERVIEW

Introduction to the Gamification Course

✔   This course is about implementing Game-Based Learning / Gamification in ways that generate sustained learner engagement and produce measurable educational benefits.

✔   The course is aimed at educators serving both primary and secondary school level (including special needs education).

✔   The purpose of the course is to introduce you to the concepts of Games-Based Learning / Gamification ensuring responsible and successful implementation of digital educational games both in different countries and across school subjects.

✔   The course is mainly streamlined to the conduct of gamified activities in Virtual Reality Environments (3D Virtual Worlds) but no particular technical skills or game-playing experience are required.

COURSE DESCRIPTION

Highlights

✔ Game-Based Learning is considered to be one of the most prevalent approaches that can boost learners' motivation and increase engagement.

✔ Gamification is defined as the application of digital game design techniques in non-game contexts (such as business, education).
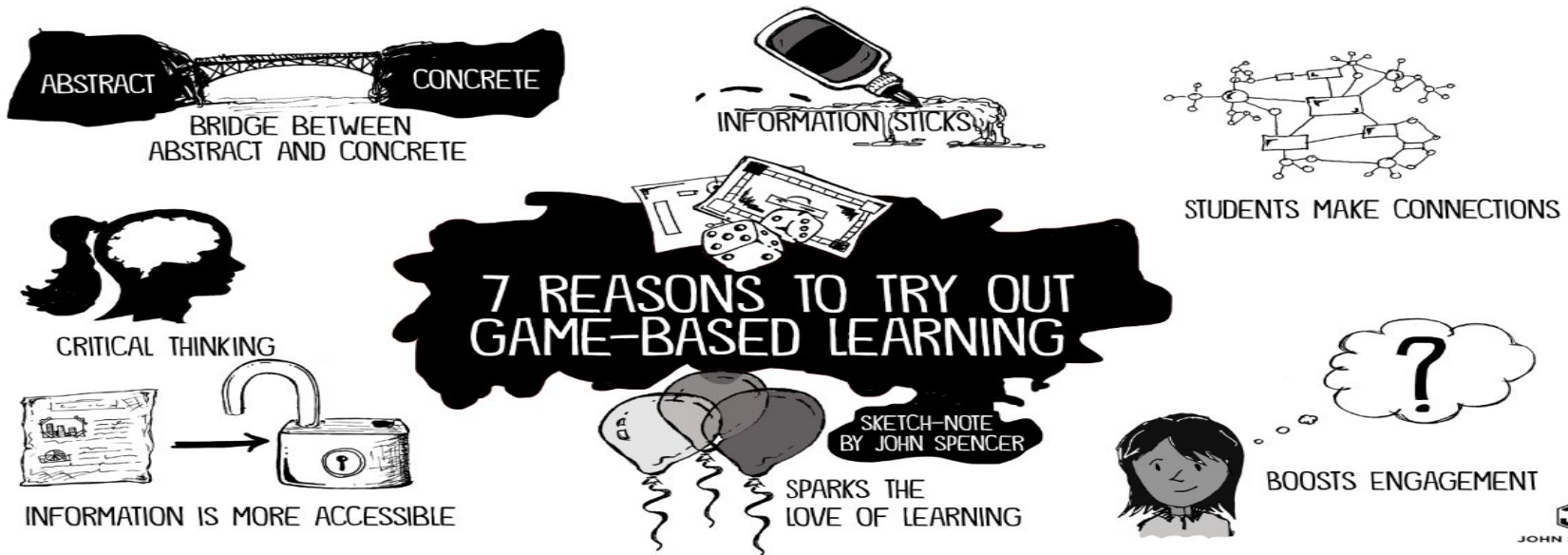
COURSE DESCRIPTION

Intended Learning Outcomes

Upon successful completion of this course, you will be able to…

✔ …understand the advantages and disadvantages of Game-Based Learning and Gamification in education.

✔ …identify and assess the potential of the available Serious Games in view of their students' educational preferences and needs.

✔ …establish new educational practices by integrating Games-Based Learning features and Gamification strategies.

✔ …integrate ICT tools (such as 3D Virtual Worlds) and custom-made learning interventions in their classroom activities.

LEARNING OBJECTIVES

Intended Learning Outcomes

In terms of knowledge…

✔ …understand the theoretical and conceptual principles of Games-Based Learning.

✔ …identify the differences between the (serious) games genres.

✔ …describe the structural elements of educational games.

✔ …understand the potential and the risks that the games may bring in education.

In terms of skills…

✔ …conduct independent research related to educational games.

✔ …design sample units of lesson plans based on gamification.

✔ …develop gamified educational activities in 3D educational Virtual Worlds.

LEARNING OBJECTIVES

Intended Learning Outcomes

In terms of competencies…

✔ …determine the roles that students can undertake in digital games

✔ …determine the actions that students can perform in digital games

✔ …recognise the fundamental Learning Mechanics used for the design of educational games

✔ …recognise the fundamental Game Mechanics used for the design of educational games

✔ …integrate gamified activities in class to increase students' motivation and make classes more effective.

COURSE STRUCTURE

Key Information

✔ The best way to learn gamification is to do gamification!

✔ For this reason, the whole course has been converted into a game!

✔ This is a 'flipped' course divided into 8 units which are denoted as 'Questlines'.

✔ Each questline involves different 'tasks' which are denoted as 'Quests'.

✔ Successful completion of each questline awards an 'Achievement'.

✔ At the same time, your 'Level' increases by 1.

✔ Finally, some questlines include 'Challenges' that can help you comprehend your understanding of the material.

✔ Below we provide an overview of the course structure (questlines).

COURSE STRUCTURE

Overview of the Gamification course questlines

Lv.	Questline	Achievement
0	Introduction to the Gamification Course	A Present for Teacher
1	Gamified Education	Spectral Teacher
2	Classification of (Serious) Games	Hunger For Games
3	Classification of Player Types	Know Your Role
4	Classification of Student Actions in 3D Virtual Worlds	Keepin' Busy
5	Classification of the Structural Elements of Educational Games	Knowledge Is Power
6	Classification of the Learning Mechanics	Learning The Ropes
7	Classification of the Game Mechanics	The Mechanar
8	Exploration of Example Educational & Leisure Games	Learning From the Best

COURSE ASSESSMENT

Integrated Assessment Tasks

✔   Assessment takes place both during and at the end of the course.

✔   The intermediate assessment focuses on the Learning Outcomes of each questline.

✔   Following completion of each assessment, you will receive Experience Points ('XP').

✔   The summative assessment concerns the evaluation of your training experience.

COURSE ASSESSMENT

Overview of the Gamification course assessment tasks

Assessment	Theme	Evaluation	Experience Points
#1	Game-Based Learning and Gamification	Quiz	100 XP
#2	Serious Games genres	Quiz	200 XP
#3	Player Roles	Quiz	350 XP
#4	Activities in 3D Virtual Worlds	Quiz	400 XP
#5	Elements of Serious Games	Quiz	450 XP
#6	Learning Mechanics	Quiz	500 XP
#7	Game Mechanics	Quiz	500 XP
#8	Deconstructing educational games	-	-

COURSE ASSESSMENT

Leaderboard: Experience-Ranking scale

Rank	Experience Points	Completion Rate	Title
#1	≥ 1250 XP	50%	Surveyor
#2	≥ 1500 XP	60%	Learner
#3	≥ 1750 XP	70%	Explorer
#4	≥ 2000 XP	80%	Adventurer
#5	≥ 2250 XP	90%	Champion

The maximum Experience Points is 2.500

RECOMMENDED READING

✔ Chou, Y. K. (2019). *Actionable gamification: Beyond points, badges, and leaderboards*. Packt Publishing Ltd.

✔ Fogg, B. J. (2009). A behavior model for persuasive design. In *Proceedings of the 4th International Conference on Persuasive Technology* (pp. 1-7).

✔ Fullerton, T. (2019). *Game design workshop: a playcentric approach to creating innovative games*. AK Peters/CRC Press.

✔ Hamari, J., Koivisto, J., & Sarsa, H. (2014, January). Does gamification work? A literature review of empirical studies on gamification. In *Proceedings of the 47th Hawaii international conference on system sciences* (pp. 3025-3034). IEEE.

✔ Kapp, K. M. (2012). *The gamification of learning and instruction: game-based methods and strategies for training and education*. John Wiley & Sons.

✔ Lee, J. J., & Hammer, J. (2011). Gamification in education: What, how, why bother?. *Academic Exchange Quarterly, 15*(2), 146.

✔ Walz, S. P., & Deterding, S. (Eds.). (2014). *The gameful world: Approaches, issues, applications*. MIT Press.

✔ Werbach, K., & Hunter, D. (2015). *The gamification toolkit: dynamics, mechanics, and components for the win*. Wharton School Press.