



KOZMINSKI UNIVERSITY

Using simulations and gamification in higher education



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Business School
Rankings 2012

Introduction

“The opposite of play isn’t work. It’s depression.”

Brian Sutton-Smith

Are we going to use games and simulations in education?

But

Howe we can use games and simulations effectively in our curriculum?

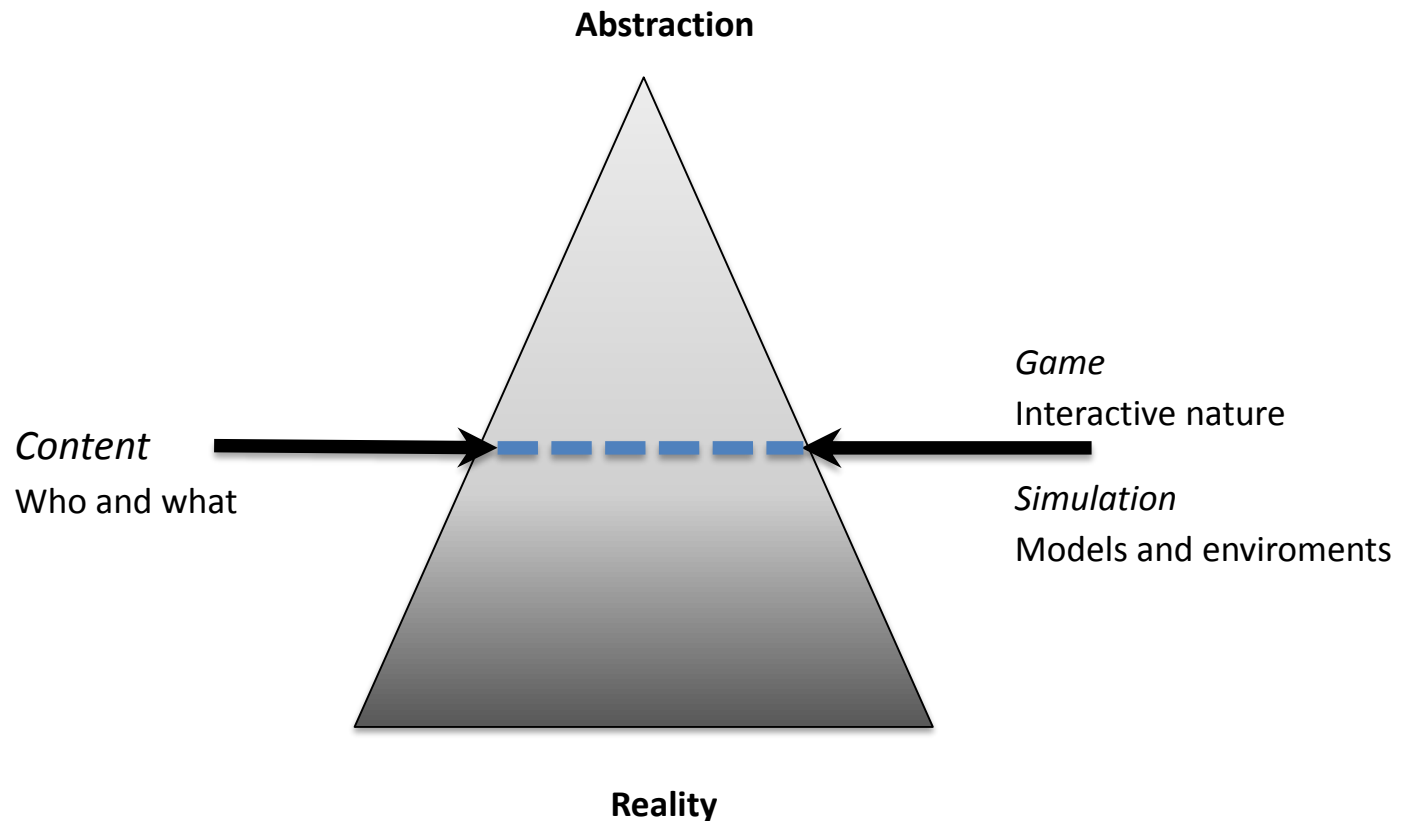
Role and place of simulation games

Choice of the role, model and place of simulation games implementation in the educational systems have a great impact upon the way they are used:

- Simulation games as a summary of knowledge and skills
- Simulation games as a motivation to learn and knowledge and skills gaps recognition
- Simulation games as a support to particular and specific field of knowledge or skills
- Simulation games as a assessment and test center

Choice of simulation scenario

- Generic versus specific scenarios
- Level of realism



Course set-up

1. Planning

- Establishing/determining learning goals
- Choosing game and scenario
- Planning the course route
- Creating methods of assessment

2. Course execution

- Introducing game and scenario to the students
- Game rounds and workshops
- Effective feedback and debriefing process

3. Evaluation of the course outcomes

- ✓ Evaluation on the level of student and self-evaluation
- ✓ Evaluation on the level of the course
- ✓ Evaluation on the level of organization

Choosing the solution

Licensing

- Scalable cost
- Short implementation span
- Many solutions on the market
- Training of the trainers
- Buying someone's idea
- Lack of local flavor

Own/custom solution

- High cost
- Long-term decision
- Unique solution
- Revenue generation potential
- Low trainer training cost
- Knowledge generation

Gamification in Education Background

- Just Press Play – Rochester Institute of Technology & Microsoft (2011)



Every achievement you earn has a matching collectible card.

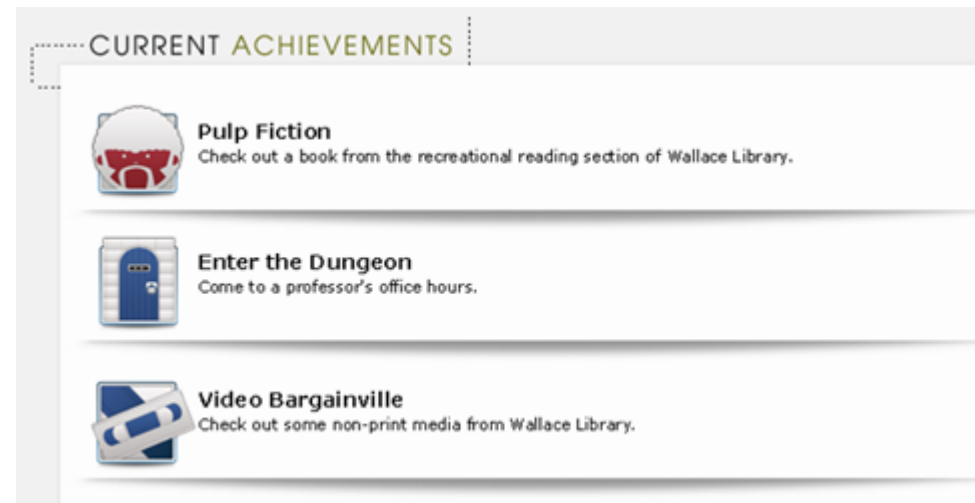
Where to get yours?

Sometimes the person scanning your PlayPass will give you the card; all other cards can be picked up in the IGM office.

Gamification in Education Background

- Just Press Play – Rochester Institute of Technology & Microsoft (2011)

Alternate Reality Game
Storyline
Quests
Achievements



Course framework

Course name: Gamification of business and education

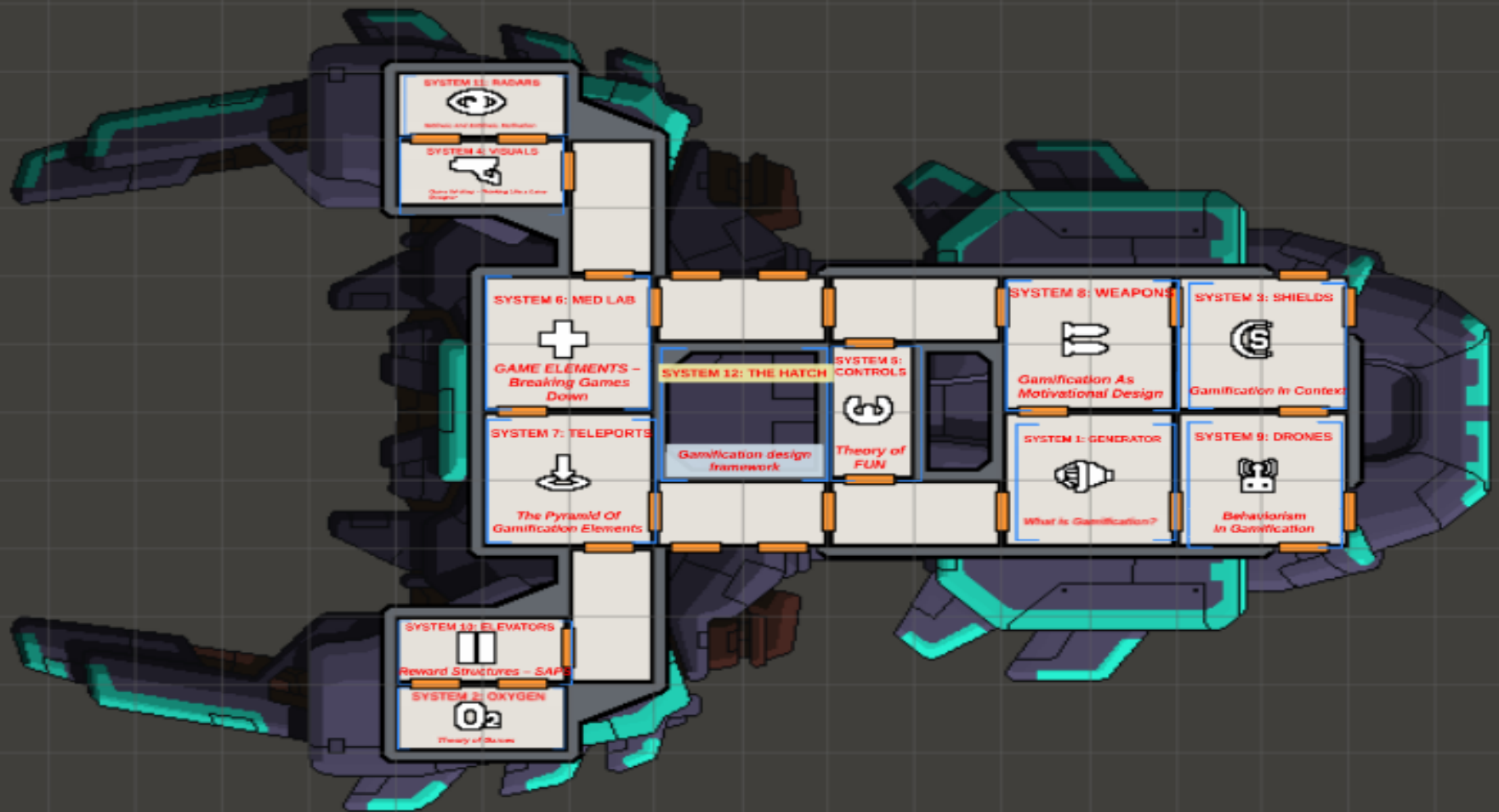
Course narrative:

Space Quest: students as spaceship crew

teacher as a spaceship commander

Main goal: reactivate spaceship generator

SPACE QUEST



WARNING: ALL SYSTEMS OFFLINE

Course framework

The storyline – it needs to have some epic meaning. Thanks to that the course can be more attractive and students motivation will be higher just to see how the story ends.

Course framework

Points system: each spaceship system needed some number of energy cells (points) to activate it back.

How to earn points?

- Missions accomplishment (one mission for each system),
- Activity during lecture,
- Instant challenges,

Course framework

Challenge + Badge = recognition



Challenge #1

Name all the social media platforms from the picture above.
Prize: 10 cells + SocialMediaNinja badge



Challenge #2

Why H.G. Wells almost started war of the worlds?
Prize: 10 cells + BookWorm badge

Course framework

Short missions – focuses students attention on certain knowledge/activity

Mission 4.

Your task is to find gamified solution and write short review about its purpose and functionalities. Start from describing the problem that chosen service or platform want to solve. Make a short description of game design elements that you can observe within the system. State your opinion about the solution and do not hesitate to be critical.

Upon successful completion of this mission you will be rewarded with 10 energy cells.

Bonus: +5 energy cells if chosen solution won't be a marketing based one

Course framework

Random events – element of surprise that strengthen students participation. F.ex.: student does a dice roll. Then if:

1: +50% of energy cells for one of completed missions

2: nothing happens

3: you can give +100% of energy cells for next mission done by your friend

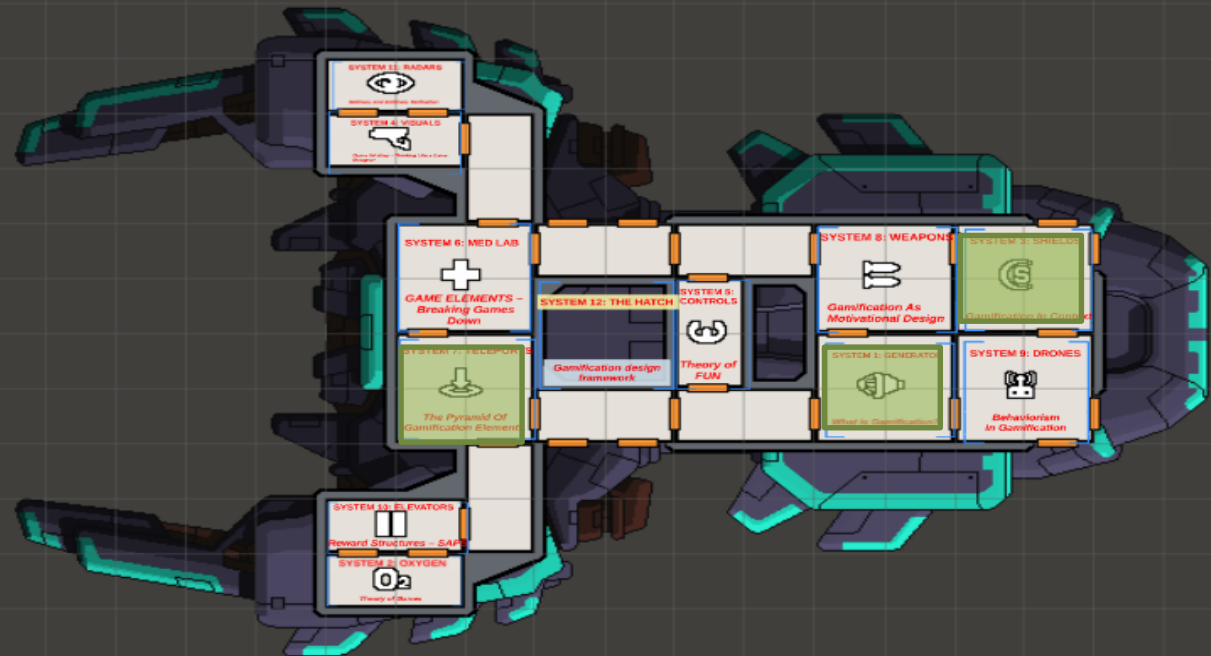
Etc.



Course framework

Progression:

SPACE QUEST



16% of Systems Online

Course framework

Boss fights – case studies, final project

- Worth a lot of points,
- Should be a challenge that uses gained knowledge and/or skills of a student,

Mid-Boss	Final Boss
4 case studies + tasks around them during a lecture. Narrative: cadets are divided into teams to gather scrap that can be found around the spaceship. It can be useful for ship repairment.	Final project: individual projects describing choosen gamified solution Narrative: main core of the ship is the most complicacted system and needs a huge ammount of eneregy cells.

Conclusions

- Player-centric design
- Stimulating positive behaviour
- Gamification could be the answer for millenials:
 - Short attention span
 - Instant feedback
 - Video games natives

Conclusions

No. of students	77
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Activity	Number of attempts
Mission	324
Challenge	23
Mid Boss/teams	48
Final Boss	71
Energy cells	8747

All actions are voluntary

Conclusions



Śr 2014-01-08 18:36

Lukasz [redacted]

Mission 2 [redacted]

Do [redacted]

DW [redacted]

Captain,

I am sending my mission 2 results below.

Mission 2:

After reading the player types description I have graded myself as follows:

Gamification Platforms

The screenshot displays the Youtopia platform interface. At the top, the user's profile is shown with the name 'Abby Block' and a profile picture. The main navigation bar includes 'World', 'You', and 'Report Card'. The user's statistics are: Total Points: 2,472, Total Hours: 141, Service Hours: 60, and Dollars Raised: \$127.

The main content area features a challenge for 'Country Parkway Elementary School'. The challenge is 'Positive Behaviors (ends in 3 months)' with a goal of 20 hours and 2 points earned. Below this, there are several activity cards:

Activity	Description	Roster	Photos	Timeline
Collaborative	Collaborative	R-E-S-P-E-C-T	School Spirit	Service Hours
Collaborative	Collaborative	R-E-S-P-E-C-T	School Spirit	Service Hours
Collaborative	Collaborative	R-E-S-P-E-C-T	School Spirit	Service Hours
Collaborative	Collaborative	R-E-S-P-E-C-T	School Spirit	Service Hours
Collaborative	Collaborative	R-E-S-P-E-C-T	School Spirit	Service Hours
Collaborative	Collaborative	R-E-S-P-E-C-T	School Spirit	Service Hours

Below the activity cards, there is a table with columns: DETAILS, AWAITING CONFIRMATION, AMOUNT COMPLETED, and POINTS EARNED.

Activity	Description	Awaiting Confirmation	Amount Completed	Points Earned
1 POINT	Attendance Be present and on time to class. Get ready to learn!	0	2	2
2 POINTS	Concentration Completes your classroom work without disturbing others or teacher prompting. Focus, grasshopper!	0	10	10
2 POINTS	Fine Arts Show off your passion for Visual Arts, Music, Theater, Dance, or Creative Writing. Make your star so bright it hurts!	0	10	10

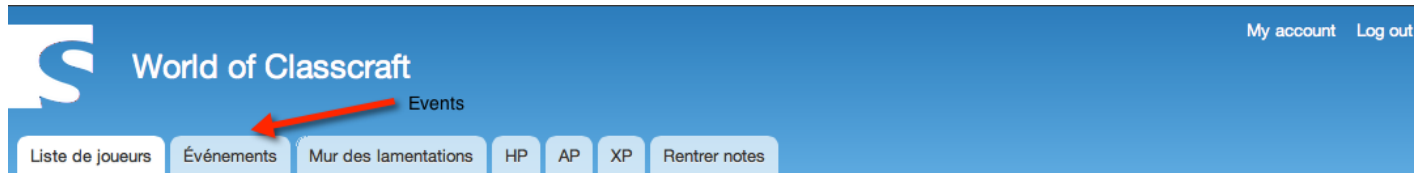
Other challenges shown include 'Arts & Culture (ended)' with 0 points earned and 'Service (ends in 6 months)' with 160 points earned.

On the right side, there are leaderboards for 'Arts & Culture', 'Positive Behaviors', and 'Service'.

Gamification Platforms



Gamification Platforms



Liste des joueurs

Groupe

Équipe

Nom	Prénom	Classe	Niveau	HP	AP	XP	Pouvoirs	PP
		Prêtre apprenti	3	46	30	2861	<ul style="list-style-type: none"> Foi Ardente Guérison 1 	1
		Prêtre apprenti	4	46	35	3170	<ul style="list-style-type: none"> Guérison 1 Foi Ardente 	2
		Prêtre apprenti	3	44	32	2470	<ul style="list-style-type: none"> Foi Ardente Guérison 1 	1
		Guerrier apprenti	3	39	30	2095	<ul style="list-style-type: none"> Protection 1 	2
		Prêtre apprenti	4	46	26	3850	<ul style="list-style-type: none"> Foi Ardente Guérison 1 Guérison 2 	0
		Prêtre apprenti	4	43	35	5575	<ul style="list-style-type: none"> Guérison 1 Foi Ardente Résurrection 	0
		Prêtre apprenti	4	46	35	3070	<ul style="list-style-type: none"> Guérison 1 Foi Ardente Résurrection 	0
		Guerrier apprenti	3	74	30	2345	<ul style="list-style-type: none"> Protection 1 	2
		Mage apprenti	4	25	50	3510	<ul style="list-style-type: none"> Transfert de mana Bouclier magique Téléportation 	0
		Guerrier apprenti	4	76	30	2995	<ul style="list-style-type: none"> Protection 1 Nourriture Indice 	0