

# Gamification in the Classroom

a practical approach for Secondary Schools



Heroes, Castles, Legends  
and CLIL Gamification



Co-funded by the  
Erasmus+ programme  
of the European Union



Erasmus+

# Course Structure.

Introduction to Gamification  
Fun & Learning Experience  
Mechanics, Dynamics and Components  
Storytelling in Games & Gamification  
How to Gamify



# **Gamification in the Classroom**

a practical approach for Secondary Schools

# Level 1. Introduction to Gamification



# **Gamification in the Classroom**

a practical approach for Secondary Schools



Makes everyone a Hero!!

# Introduction to Gamification


















Games vs Game-Based Learning (GBL) vs Gamification						
© K.Becker 2016	Game	Serious Game	Game for Learning (G4L)	Game-Based Learning (GBL)	Game-Based Pedagogy (GBP)	Gamification
Basic Definition	This term includes all the other categories <b>except</b> gamification.	A game <b>designed</b> for purposes other than or in addition to pure entertainment.	A game <b>designed</b> specifically with some learning goals in mind.	The process and practice of <b>learning</b> using games. [From the <b>learner's</b> point of view]	The process and practice of <b>teaching</b> using games. [From the <b>teacher's</b> point of view]	The use of game elements in a non-game context.
Purpose	Can be for any purpose.	Change in behaviour, attitude, health, understanding, knowledge.	Normally connected with some educational goals.	<b>Not a game</b> - this is an approach to learning.	<b>Not a game</b> - this is an approach to teaching.	Often used to drive motivation, but can also be used to make something more playful and game like.
Primary Driver (why used)	Can be either play or rewards (or both).	To get the message of the game.	To learn something.	To improve learning. To increase learning effectiveness. <i>*Note GBP &amp; GPL are related, but not the same.</i>	To improve teaching practice & effectiveness. <i>*Note GBP &amp; GPL are related. They are like two sides of a single coin.</i>	Depending on how it's implemented, it can tap into extrinsic or intrinsic rewards (or both)
Key Question	Is it fun?	Is it engaging?	Is it effective?	Am I learning what I am supposed / need to be learning?	Is it effective?	Business: Does it improve profits? Education: Is it effective?
Focus	Player Experience ( <i>how</i> )	Content / Message ( <i>what</i> )	Content / Message ( <i>what</i> )	Learning Objectives ( <i>what &amp; how</i> )	Learning Objectives ( <i>what &amp; how</i> )	User Experience ( <i>how</i> )
Budgets	Next to nothing to 100's of millions.	Next to nothing to 100's of thousands.	Next to nothing to 100's of thousands.	Usually part of institutional budget. Largely irrelevant to the user.	Usually part of institutional budget. Largely irrelevant to the user.	Next to nothing to 10's of thousands..
Business Model	User Pays	Producer Pays	Varies	Institution Pays	Institution Pays	Producer Pays
Concept Catalyst	Core Amusement.	Message.	Performance or Knowledge Gap	Game is the lesson or is used as a part of the lesson.	Game is the lesson or is used as a part of the lesson.	In learning it usually impacts HOW things are taught and administered rather than WHAT is taught.
Fidelity	Self-consistent, otherwise irrelevant	Faithfulness to message essential	Faithfulness to message essential	Faithfulness to message essential	Faithfulness to message essential	Not Applicable. If a narrative exists, it need have nothing to do with what's being gamified.

# Level 1.

## Introduction to Gamification



Game & Game-Like Experiences Split by Design Intent

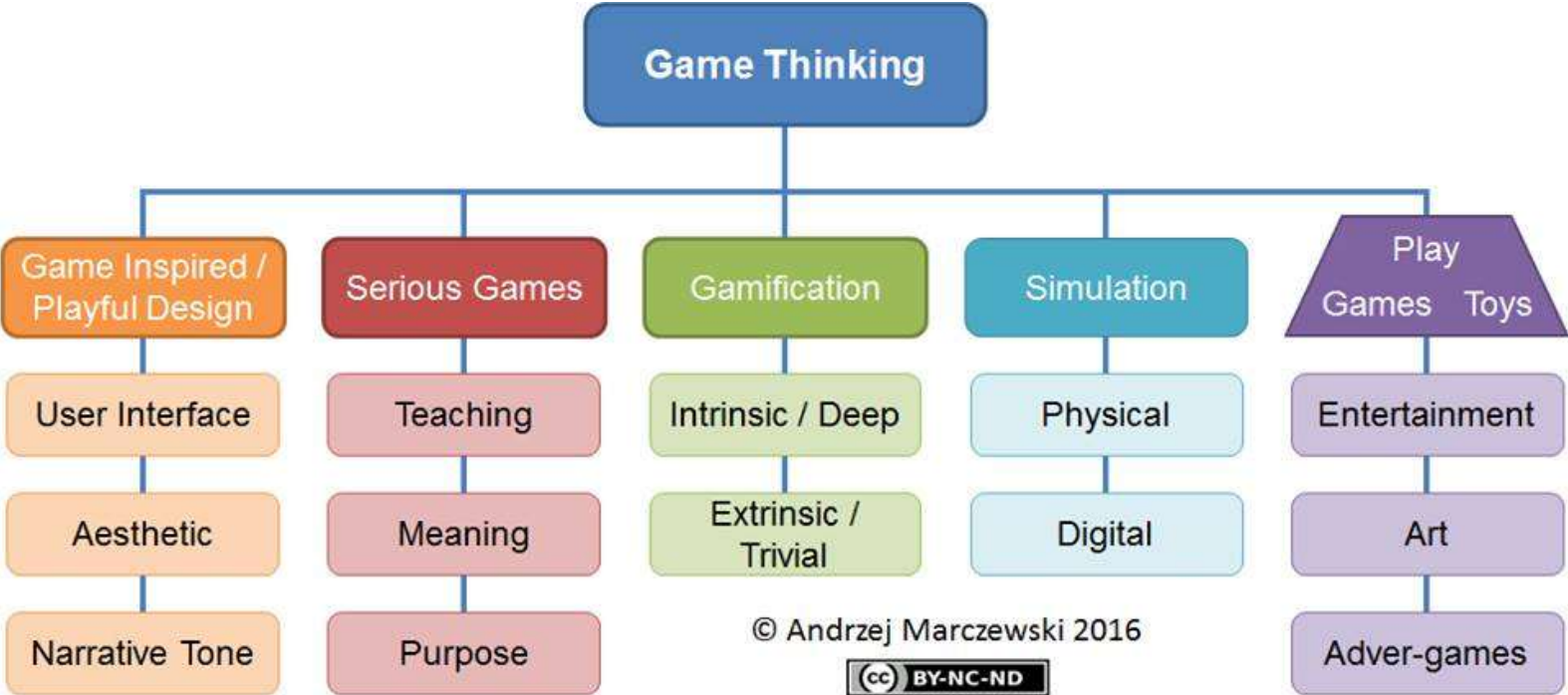
	Game Thinking	Game Elements	Virtual World	Game Play	Non Purposeful
Game Inspired Design					
Gamification					
Simulation					
Serious Game					
Game					

**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Level 1.

## Introduction to Gamification



### Gamification in the Classroom

a practical approach for Secondary Schools





Heroes, Castles, Legends  
and CLIL Gamification

Co-funded by the  
Erasmus+ programme  
of the European Union



# Level 1.

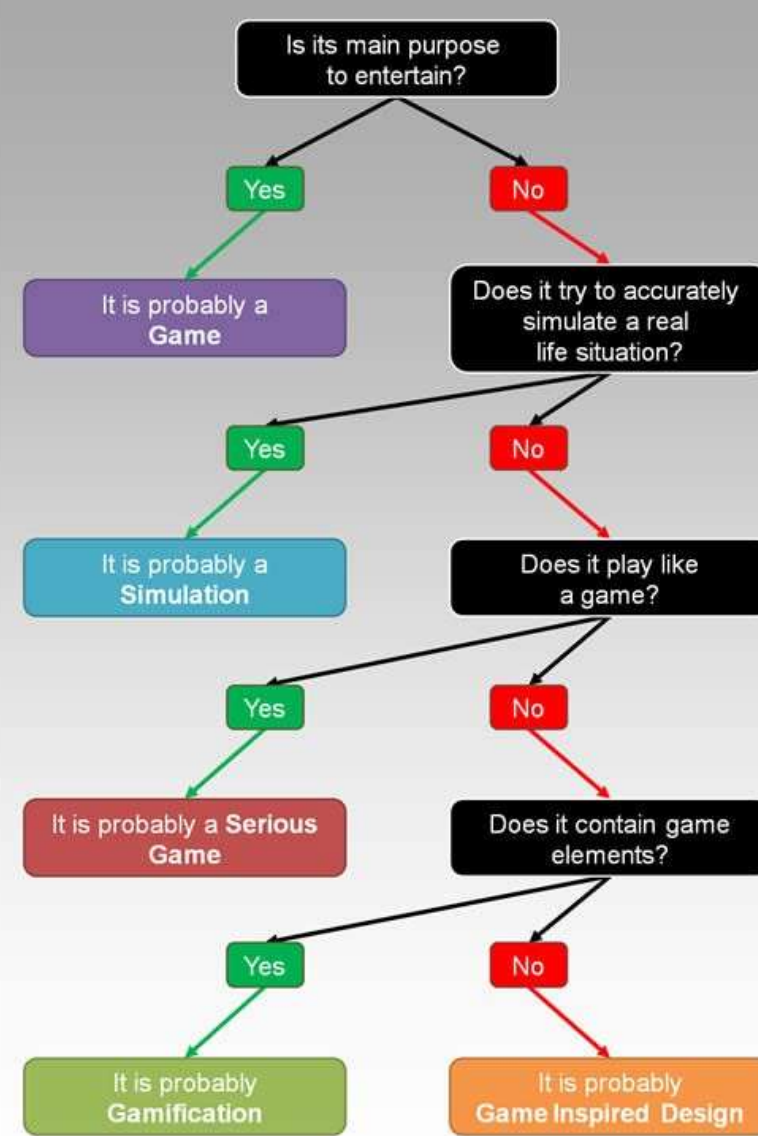
## Introduction to Gamification



### Game Thinking – What do you need?



### Game Thinking – What have you got?



# Introduction to Gamification



# Benefits

- Make classrooms more fun and engaging
- Motivate students to complete activities
- Help students focus to be more attentive to what they are learning
- Allow students engage in friendly competitions with peers

# Level 1.

## Introduction to Gamification



## Problems

- Gamification can become predictable and boring
- Poorly designed gamified activities can seem meaningless (if learning objectives are not well defined)
- Gamification can seem manipulative (ethical questions arise)

**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 1.

### Introduction to Gamification



## Gaming dynamics

Why do we (or children) love to play videogames?

Go to **www.menti.com** and use the code **85 91 98**



**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 1.

### Introduction to Gamification



## What player type are you?

Take the Bartle test

Go to

<http://matthewbarr.co.uk/bartle/>



**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Level 1.

## Introduction to Gamification



### Killers

**Defined by:**  
A focus on winning, rank, and direct peer-to-peer competition.

**Engaged by:**  
Leaderboards, Ranks



### Achievers

**Defined by:**  
A focus on attaining status and achieving preset goals quickly and/or completely.

**Engaged by:**  
Achievements



### Socialites

**Defined by:**  
A focus on socializing and a drive to develop a network of friends and contacts.

**Engaged by:**  
Newsfeeds, Friends Lists, Chat



### Explorers

**Defined by:**  
A focus on exploring and a drive to discover the unknown.

**Engaged by:**  
Obfuscated Achievements

## Gamification in the Classroom

a practical approach for Secondary Schools



# Introduction to Gamification



## The Player User Type Expanded



# Level 1.

## Introduction to Gamification



**Gamification in the Classroom**  
a practical approach for Secondary Schools

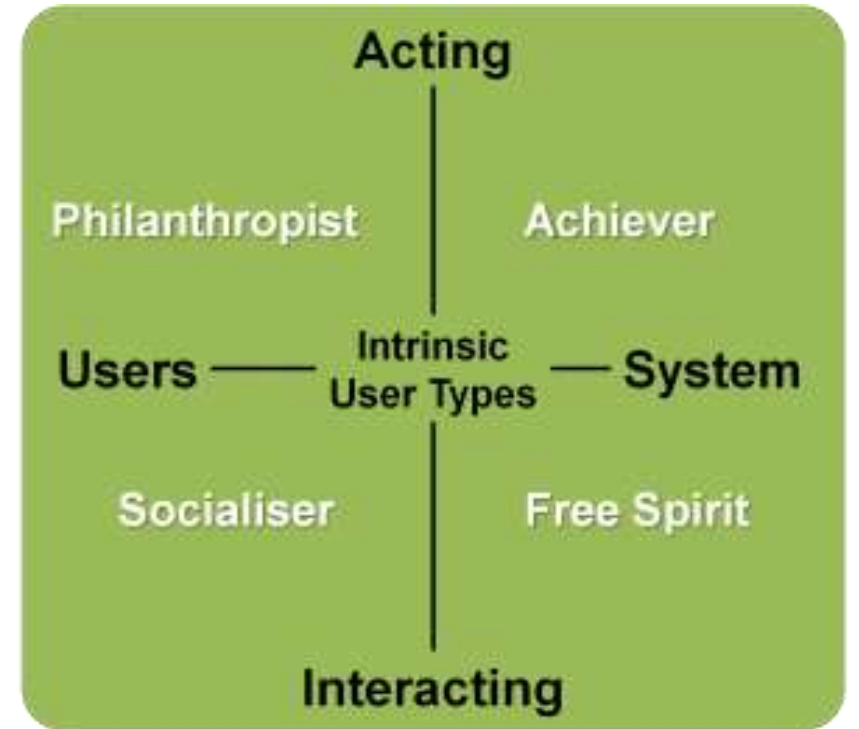


# Introduction to Gamification



# What player type are you?

## Intrinsic User Types



## Level 1.

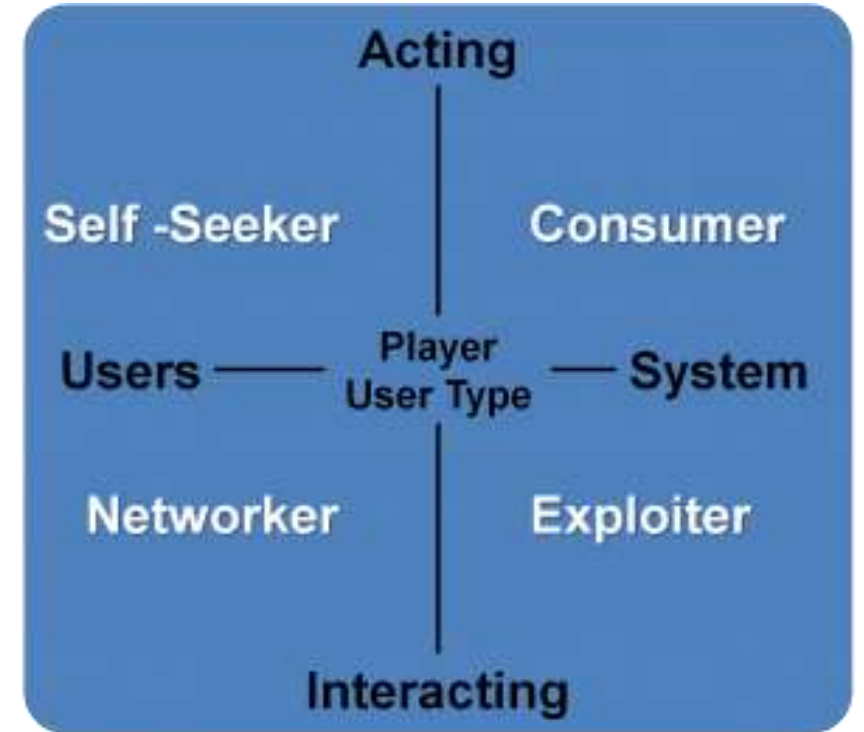
### Introduction to Gamification



## What player type are you?

### Player (Extrinsic) User Sub-Types:

Essentially the Player is motivated by rewards, plain and simple. They will do similar things to the intrinsically motivated group, but only if there is a reward at the end of it!



**Gamification in the Classroom**  
a practical approach for Secondary Schools



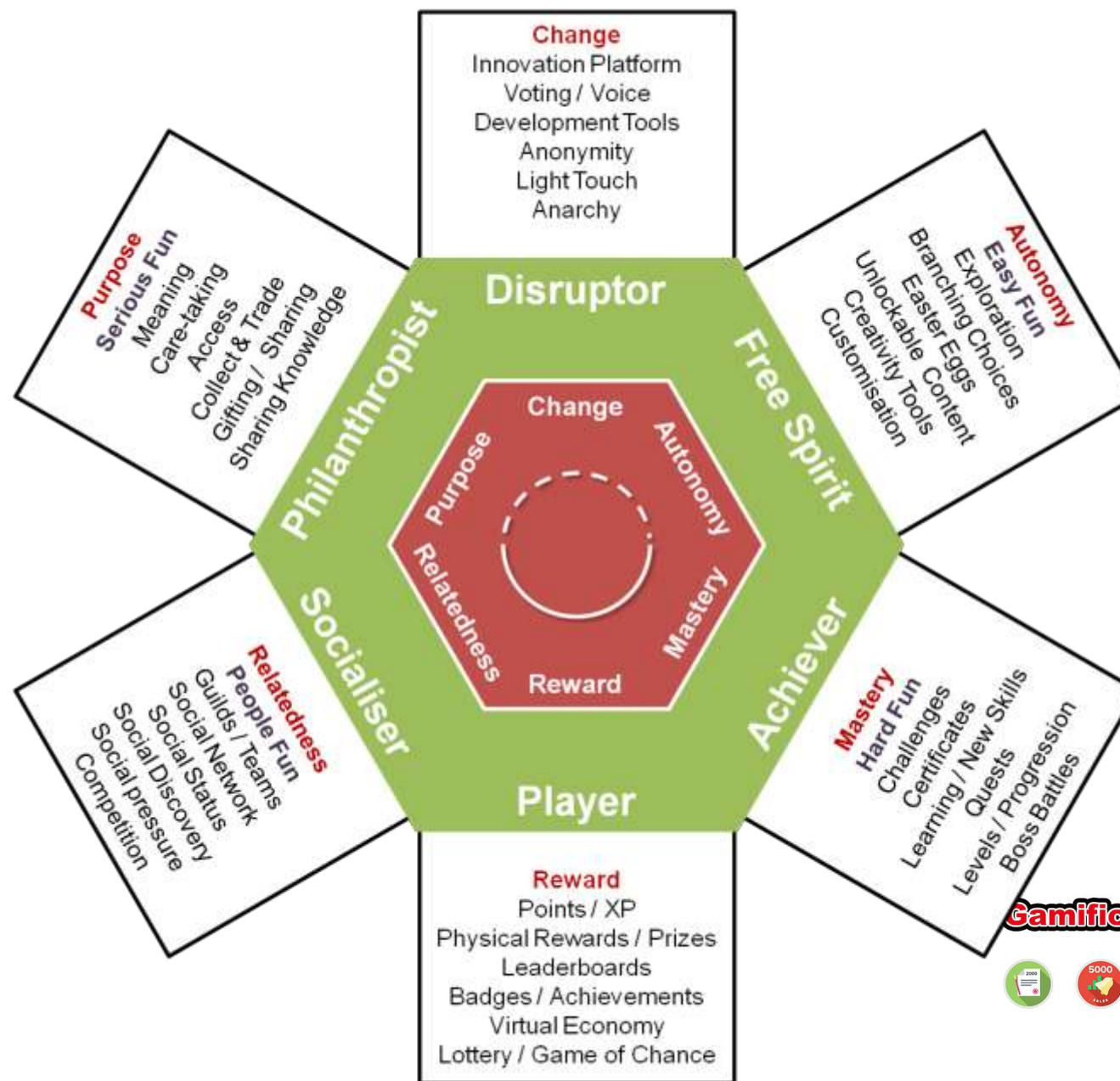
# Introduction to Gamification



**User Types**

	Users	System
Black Hat	Griefer	Destroyer
White Hat	Influencer	Improver

# Introduction to Gamification



# Gamification in the Classroom



## Level 1.

### Introduction to Gamification



**Games make an emotional connection**

**Gamification in the Classroom**  
a practical approach for Secondary Schools



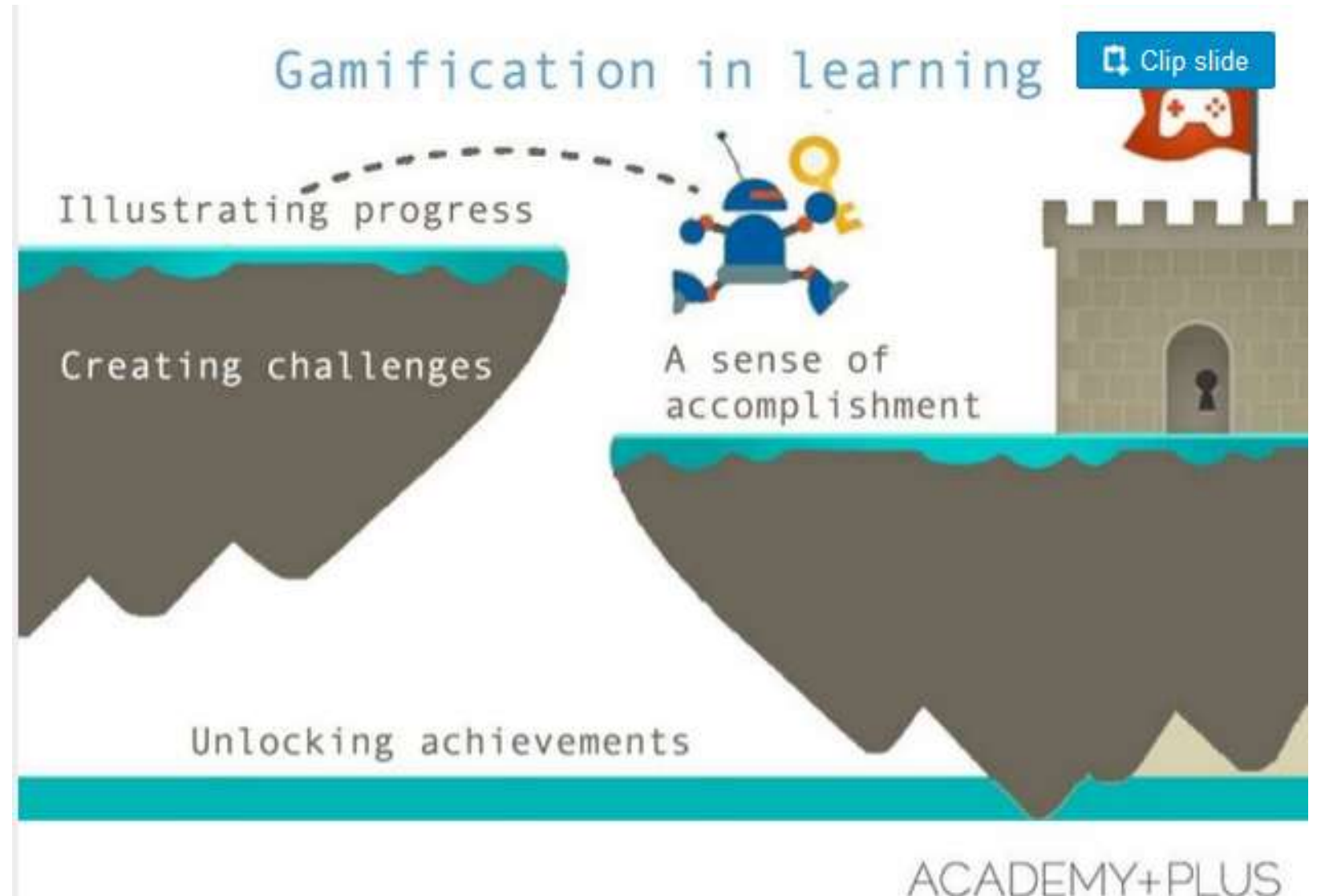
# Gamification in the Classroom

a practical approach for Secondary Schools



## Level 2. Fun and Learning Experience

## Level 2. Fun and Learning Experience



## Level 2. Fun and Learning Experience



# 8 GAME ELEMENTS TO MAKE LEARNING FUN

These elements make learning games more engaging and motivating for your learners.



### ELEMENT 1: MYSTERY

Mystery piques learners' curiosity—use it to draw them in and encourage them to explore content from several angles.

### ELEMENT 2: ACTION

Good games start with action. Involve the learners immediately in the learning process—don't have them read content for the first 10 screens. Action and interactivity engage learners.

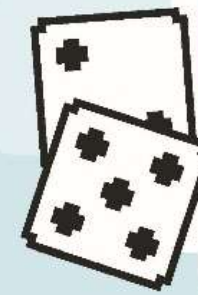
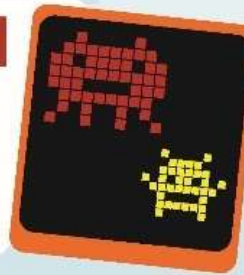


### ELEMENT 3: CHALLENGE

Learning modules need to start with a challenge—something that is difficult, requires deep thinking, and cannot be achieved by guessing.

### ELEMENT 4: BEING AT RISK

In a game, a player could lose a life or be required to start over because of a wrong move. When people believe something is at risk, they pay closer attention, focus their energy, and are engaged with the task at hand.



### ELEMENT 5: UNCERTAINTY OF OUTCOME

Add an element of chance into the learning process. Have learners "bet" on the confidence of an answer or give them a 50/50 opportunity to get an easy or hard question. Uncertainty adds suspense and intrigue and focuses learners' attention on the task at hand.

### ELEMENT 6: OPPORTUNITY FOR MASTERY

People like to have a sense of mastery. They like to know that they know the content. Give them a chance to apply their newly learned content; ask it in different ways, and see if they can express their own knowledge.



### ELEMENT 7: VISIBLE SIGNS OF PROGRESS

Games let you see how you are doing. Throughout the module, give learners visible signs of moving through the content, such as a badge when they achieve a learning objective. Don't leave "progress reports" until the end. Include them often within the instruction.

### ELEMENT 8: EMOTIONAL CONTENT

Games fill a player with a wide range of emotions—frustration, elation, sadness, anger, happiness. Put the critical element of emotion back into learning. Humans are quite adept at recalling learning when the learning is tied to strong emotions.



# **Gamification in the Classroom**

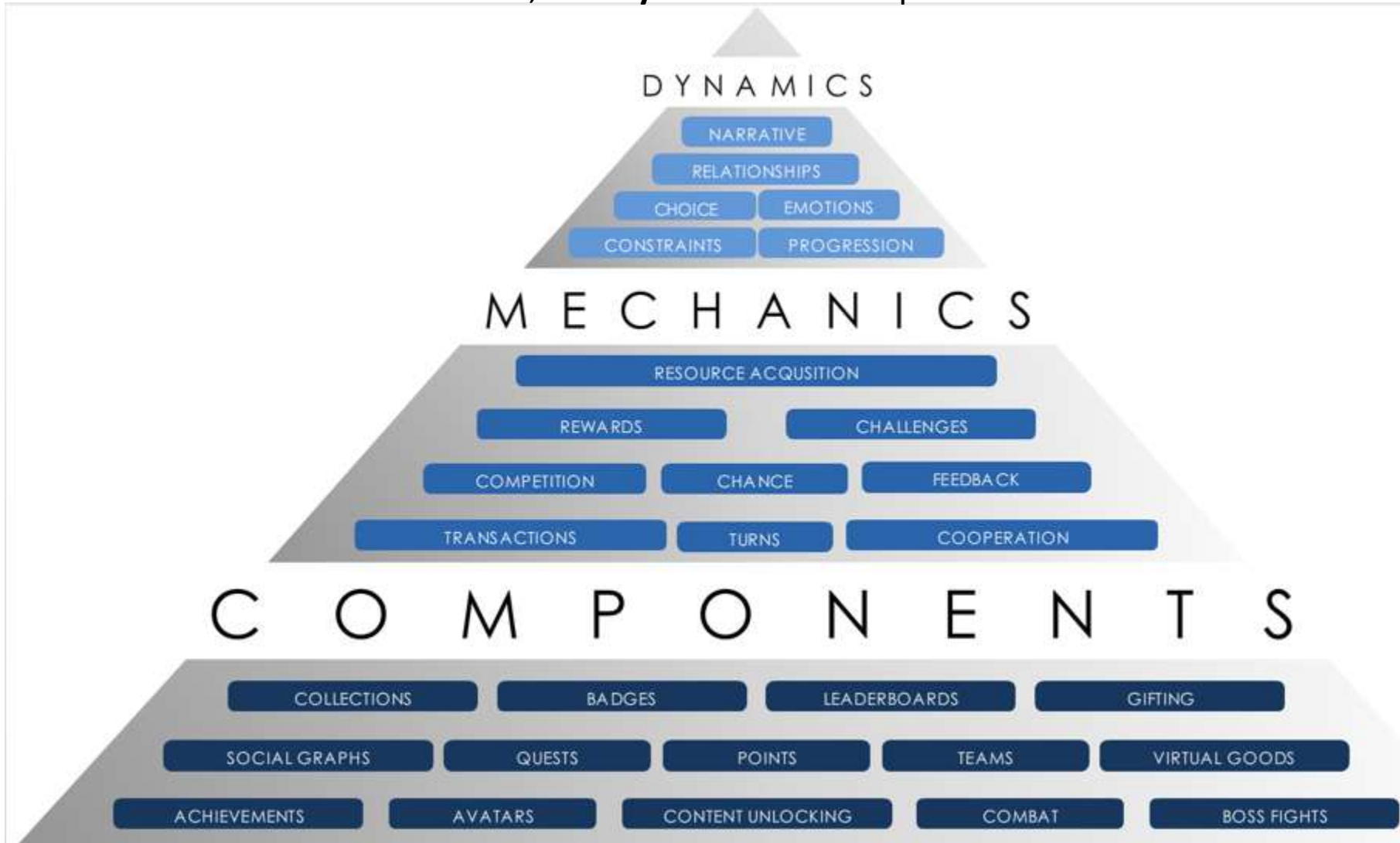
a practical approach for Secondary Schools

## Level 3. Mechanics, Dynamics and Components



## Level 3. Mechanics, Dynamics and Components

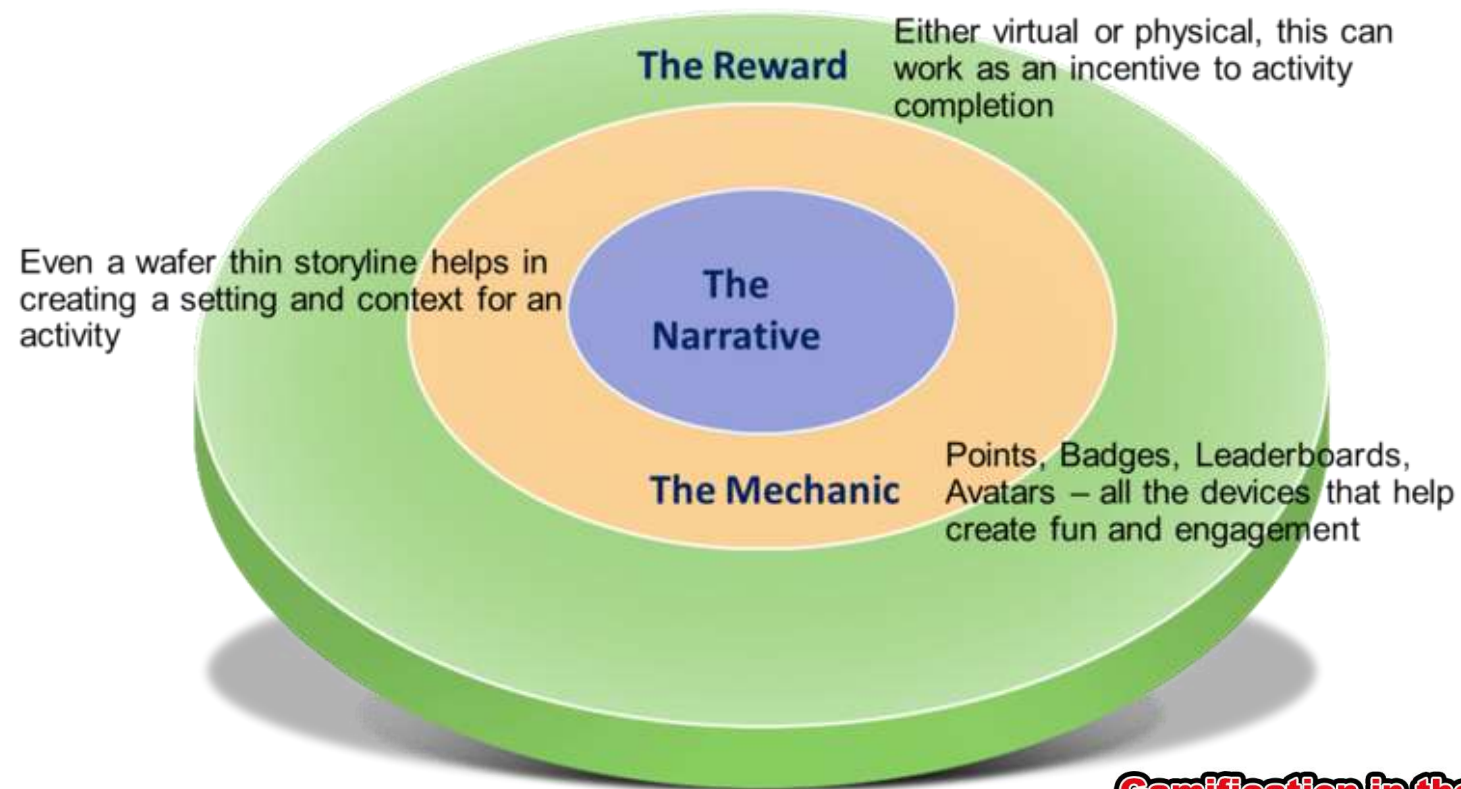
Structured as a pyramid, **Components** are the base element, with **Mechanics** in the middle, and **Dynamics** at the top.



## Level 3. Mechanics, Dynamics and Components



## Gamification Interventions



**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Gamification in the Classroom

a practical approach for Secondary Schools



1000  
5000  
25  
1 week  
500k



Heroes, Castles, Legends  
and CLIL Gamification



Co-funded by the  
Erasmus+ programme  
of the European Union



Erasmus+

# Level 3. Mechanics, Dynamics and Components

## Implementation of a Gamification experience

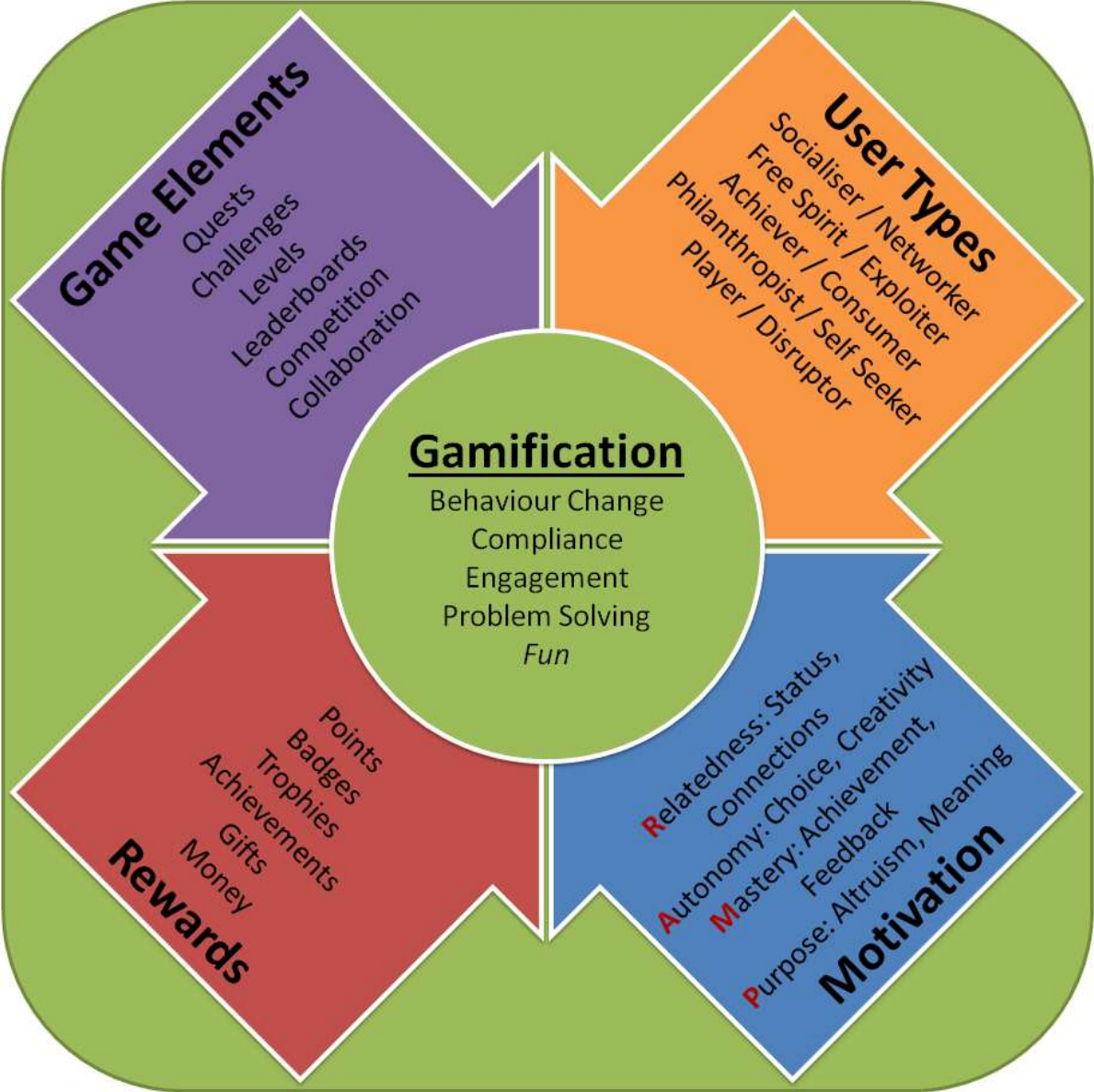
- Define (learning) objectives
- Delineate target behaviors (assessment goals)
- Describe players (students)
- Devise activity cycles (beginning --> end; loops; branches)
- Incorporate FUN
- (Then, finally) Deploy the appropriate Mechanics and Components



**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Level 3. Mechanics, Dynamics and Components



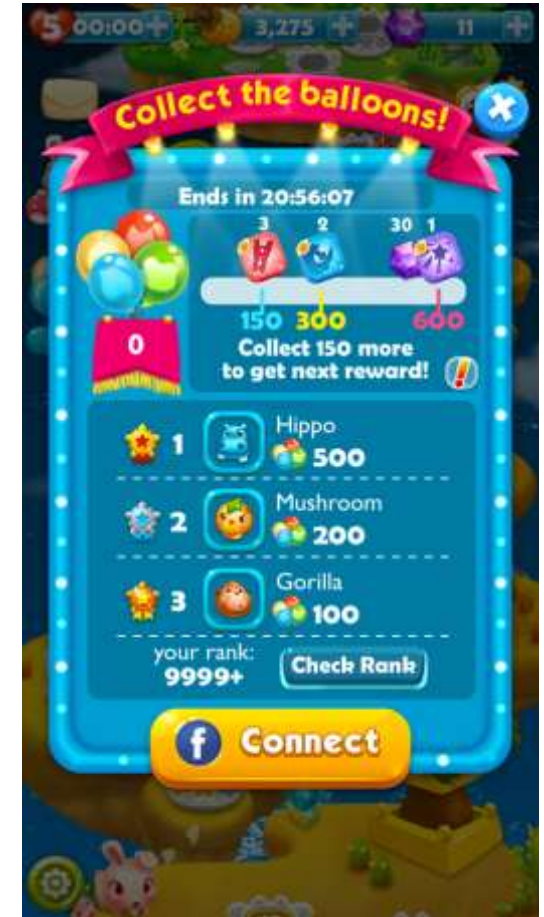
**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 3. Mechanics, Dynamics and Components

### Leaderboards

Team leaderboards drive competitiveness and social connectedness, creating a sense of community.



### Gamification in the Classroom

a practical approach for Secondary Schools



## LEARNERS REMEMBER

10%

OF WHAT THEY  
READ

20%

OF WHAT THEY  
LISTEN

50%

OF WHAT THEY  
SEE

90%

OF WHAT THEY  
DO  
EVEN IF ONLY AS A SIMULATION

## ELEMENTS OF GAMIFICATION

### ACHIEVEMENT



BADGES AND  
PRIZES



UNLOCKING  
LEVELS



COOPERATIVE  
GAMES



SOCIAL  
SHARING

### ENGAGEMENT



CONSTANT  
CHALLENGES



VISUAL  
DESIGN



LEADER  
BOARD



POINTS AND  
GIFTS

### COMPETITION

## HOW TO GAMIFY LEARNING



ILLUSTRATING  
PROGRESS



INCREASING  
ENGAGEMENT



CREATING  
CHALLENGES



INSTILLING  
ACCOMPLISHMENT

# Gamification in the Classroom

a practical approach for Secondary Schools

## Level 4. Storytelling



## Level 4. Storytelling



### Components

1. The elements of a Story
2. The Storyline
3. The Structure

**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. Storytelling



### 1. The elements of a Story

- A Story needs a main carácter (Hero)
- With Intention
- And Quality



**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. Storytelling



### 1. The elements of a Story

- A Story needs a goal
- Something to Aim for



**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. Storytelling



### 1. The elements of a Story

- A Story needs an obstacle
- Or enemy



**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. Storytelling



### 1. The elements of a Story



- Hero



- Obstacle



- Goal

**Gamification in the Classroom**  
a practical approach for Secondary Schools



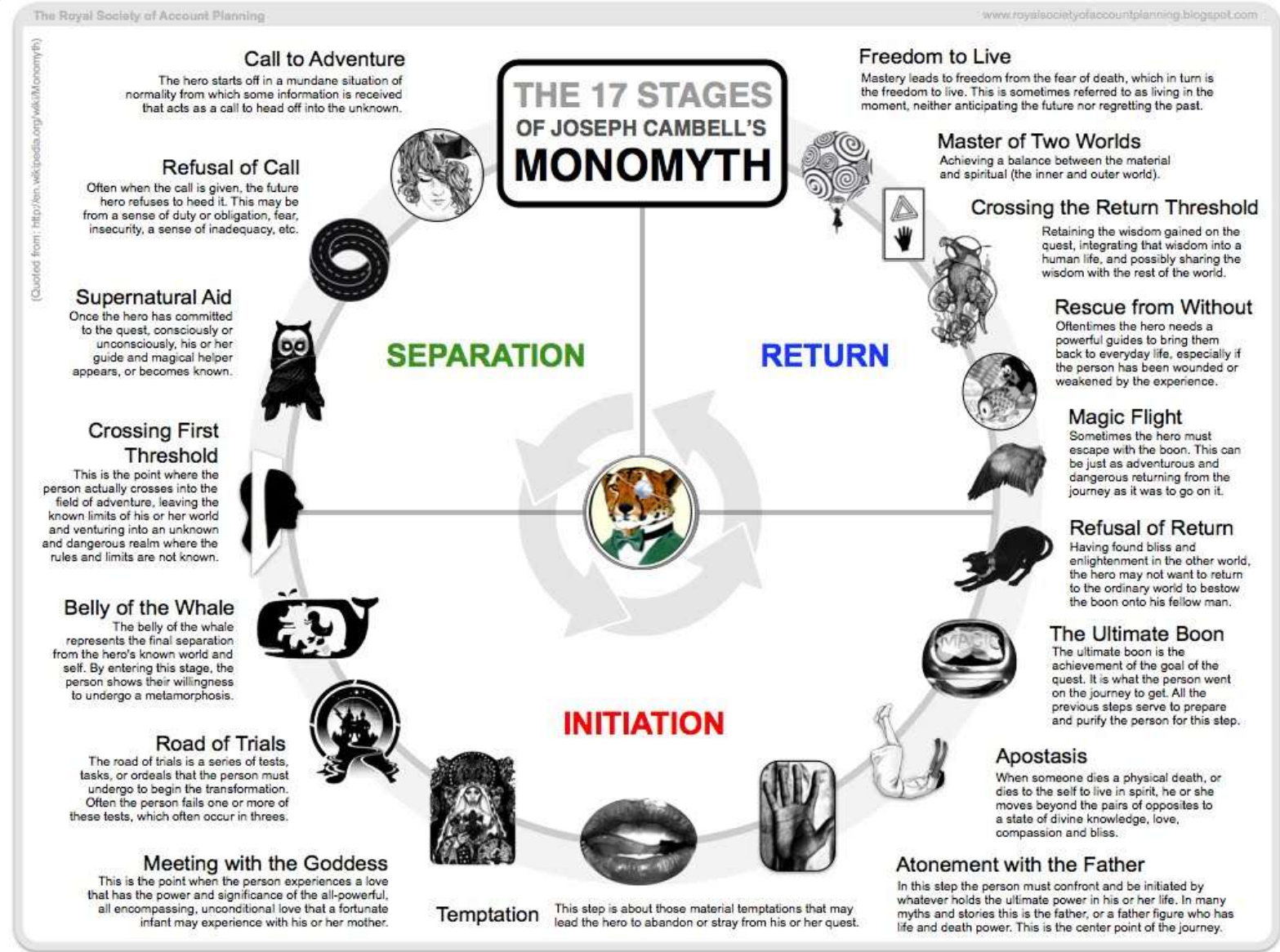
## Level 4. Storytelling

### 2. Story Line: A pattern



## Level 4. Storytelling

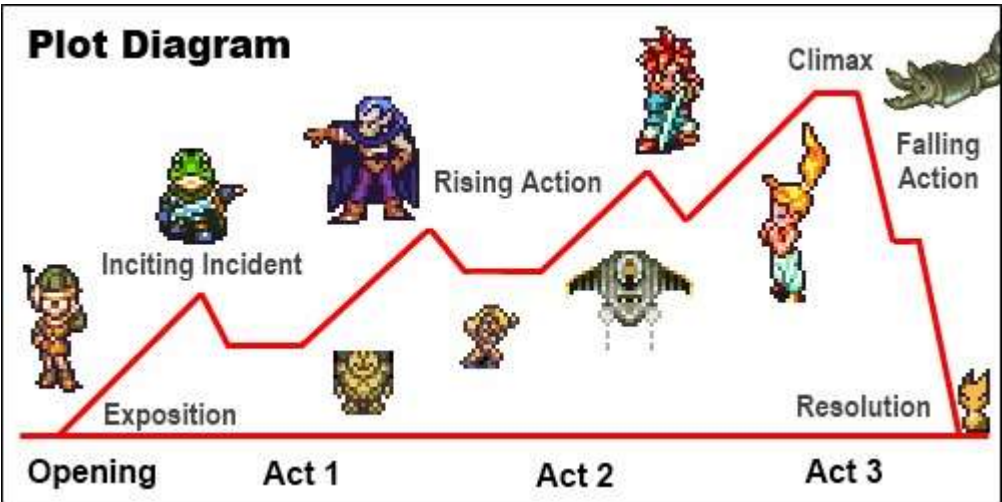
# 2. Story Line: A pattern



# Level 4. Storytelling



## 3. The Structure



**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Gamification in the Classroom

a practical approach for Secondary Schools



## Level 5. How to Gamify



# Level 4. How to Gamify



## Level 4. How to Gamify



## Module 1: Define Learning Objectives.

- Define your measurable learning objectives
- Determine how Gamification will help you to achieve your objectives
- Communicate why you are gamifying this project or process
- Identify what you want your players to do
- Classify the target behaviors that will help you reach your objectives
- Calculate the metrics (KPIs) you will use to measure these behaviors

**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. How to Gamify



## Module 2: Create an Epic Adventure

- Frame and wrap your quest in a spellbinding story
- Access public domain stories to find characters that you can use to build your storyline
- Experience The Story Coaster, Joseph Campbell's Monomyth, and Rory's Story Cubes
- Weave analogies and stories to make the training stickable, so that players remember facts and transfer skills to real world scenarios
- Create a narrative thread that pulls through the entire game
- Craft a compelling storyline using the four elements of a story: characters, plot, conflict, and resolution

**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. How to Gamify



## Module 3: Design Variety into Activities

- Create the right mix of ingredients in your learning activities to allow the participants to acquire knowledge and skill, rather than merely receive them
- Strategically place learning activities in the overall sequence of events
- Build relevant, challenging, and fun activities so participants want to interact with the facilitator and each other
- Set up a discussion or debrief for the participants after completing each learning activity
- Identify next steps that the participants need, should, or want to take after completing the activity
- Design activities to double-check that learning has occurred

**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. How to Gamify



## Module 4: Game Design and Mechanics

- Identify the game elements you will use (points, badges, leaderboards, etc.)
- Implement game mechanics to motivate your players
- Mix the appropriate amount of competition, collaboration, group and individual quests, challenges, and achievements to earn points, badges, and other rewards
- Give different kinds of feedback that will encourage the players continued action
- Deploy your system (Ex: no-tech, low-tech, additional programming on existing website, mobile devices, etc.)
- Pull together the talent you need on your team to implement your project

**Gamification in the Classroom**  
a practical approach for Secondary Schools



## Level 4. How to Gamify



## Module 5: Tally up the Aesthetics So They Wanna Play!

- Label the feelings and emotions you want your players to experience
- Construct a consistent, attractive - even charming and captivating - cohesiveness that ties the entire project together
- Create an overall design that appeals to different senses - touch, sight, and sound - using colors, designs, textures, and manipulatives
- Design props, badges, chance cards, and rewards that are not only fun for users to earn, but also fun to look at
- Tie everything back to the other four levels, especially the learning objectives
- Answer the question: Is it fun?

**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Level 4. How to Gamify



**Gamification in the Classroom**  
a practical approach for Secondary Schools



# Gamification in the Classroom

a practical approach for Secondary Schools



Heroes, Castles, Legends  
and CLIL Gamification



Co-funded by the  
Erasmus+ programme  
of the European Union



Erasmus+