

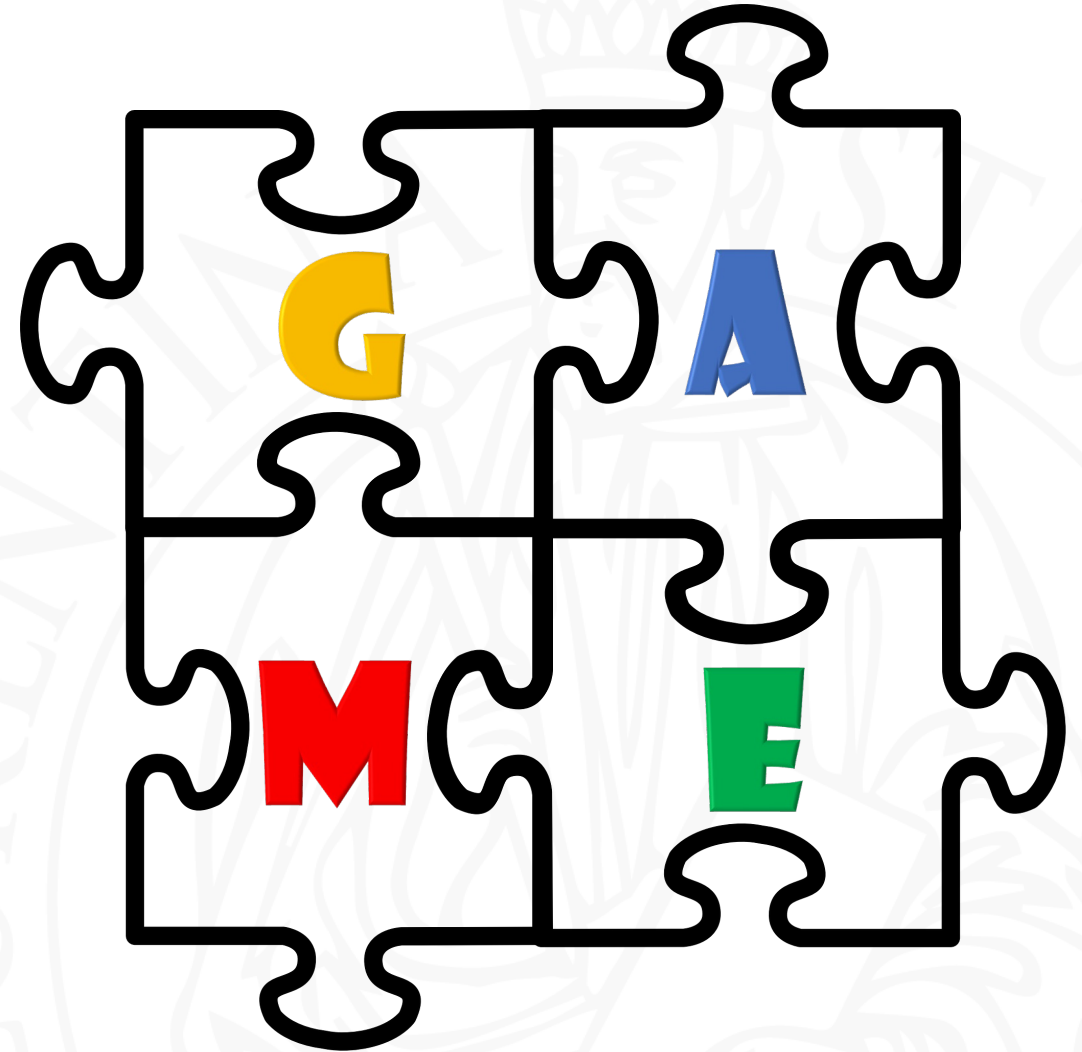


CREATIVE METHOD Game Based Learning

UNIFI Team

Cristina GAGGIOLI, Claudia LAFRANCONI, Giulia CUOZZO

Maria RANIERI, Stefano CUOMO, Silvia MICHELETTA



CREATIVE METHOD: The use of games for learning

In literature, the topic of game has always attracted the interest of many researchers, including those from different fields:

- anthropologists (Huizinga, 1938),
- sociologists (Caillois, 1967),
- psychologists (Freud, 1920; Piaget, 1955; Erikson, 1963; Winnicott, 1991),
- pedagogists (Montessori, 1970; Dewey, 1938),
- philosophers (Fink, 1969).

Game Studies investigates theories and researches concerning the relationship between human beings and game.

These studies have highlighted:

- social
- cognitive
- motivational function of game

However, a distinction must be made between the use of **game in education** and the use of **game as a teaching tool**.

GAME BASED LEARNING

Game-Based Learning refers to the use of games or video games, to achieve an educational goal.

- Sometimes entertainment games can be used.
- Sometimes specific educational games (serious games) can be used.



PLAY!

GAMIFICATION

Gamification refers to “the use of game design elements in non-game contexts”

(Deterding et al., 2011)



GAME

Gamification in education

The educational activity should be planned as a game starting from the design stage.



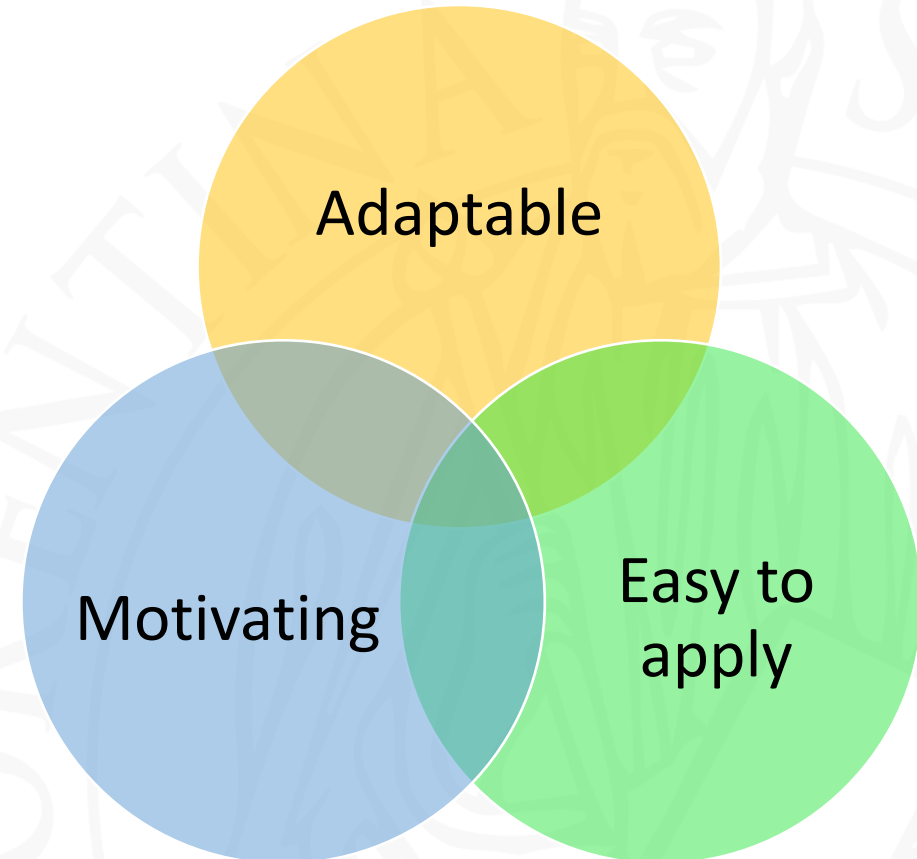
To gamify an educational activity (Landers, 2014; Gaggioli, 2022), means incorporating elements of game design into learning design.

In fact, it is not enough to play a game or videogame in class to talk about gamification, because the central element in gamification is pre-existing **instructional design**, by which elements of game design are included in teaching (Deterding, 2011).

Why gamification in education?

Gamification, as a framework, is adaptable to:

- **all age groups** (from children's services to senior citizens),
- **different environments** (school, extra-curricular, university, job),
- **different goals** (didactic: related to learning; educational: related to socialization),
- **different topics** (can be applied to all disciplines).



To do this, the teacher must

1) Know well:

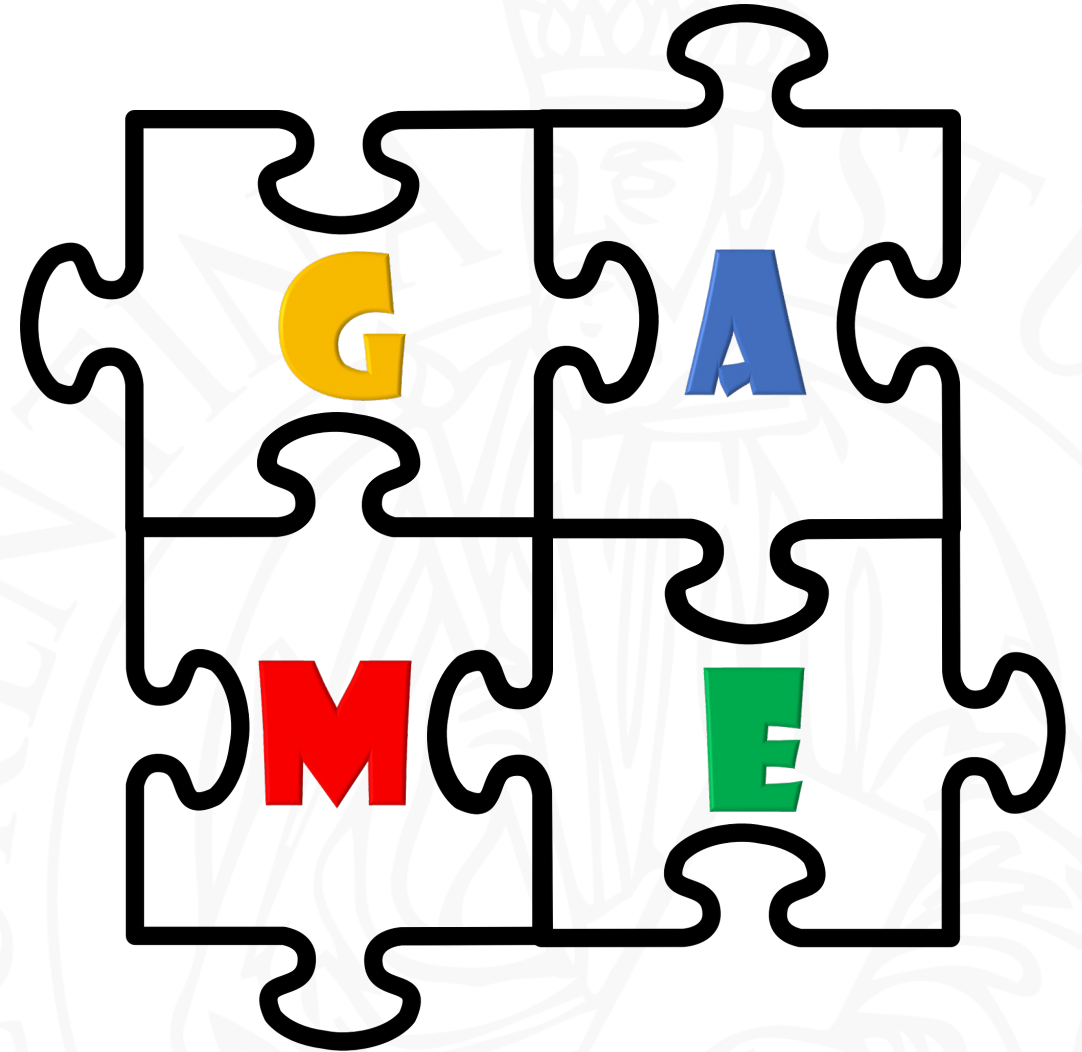
- **learning design:** (description of the target audience, goals, timing, methodologies, tools, evaluation)
- **game design:** the game elements included in the proposed activity (Werbach & Hunter, 2015) and the motivations that can drive the user to participate (Chou, 2019)
- **universal design for learning:** teaching for all

2) Bring together all this knowledge and tools in a puzzle.

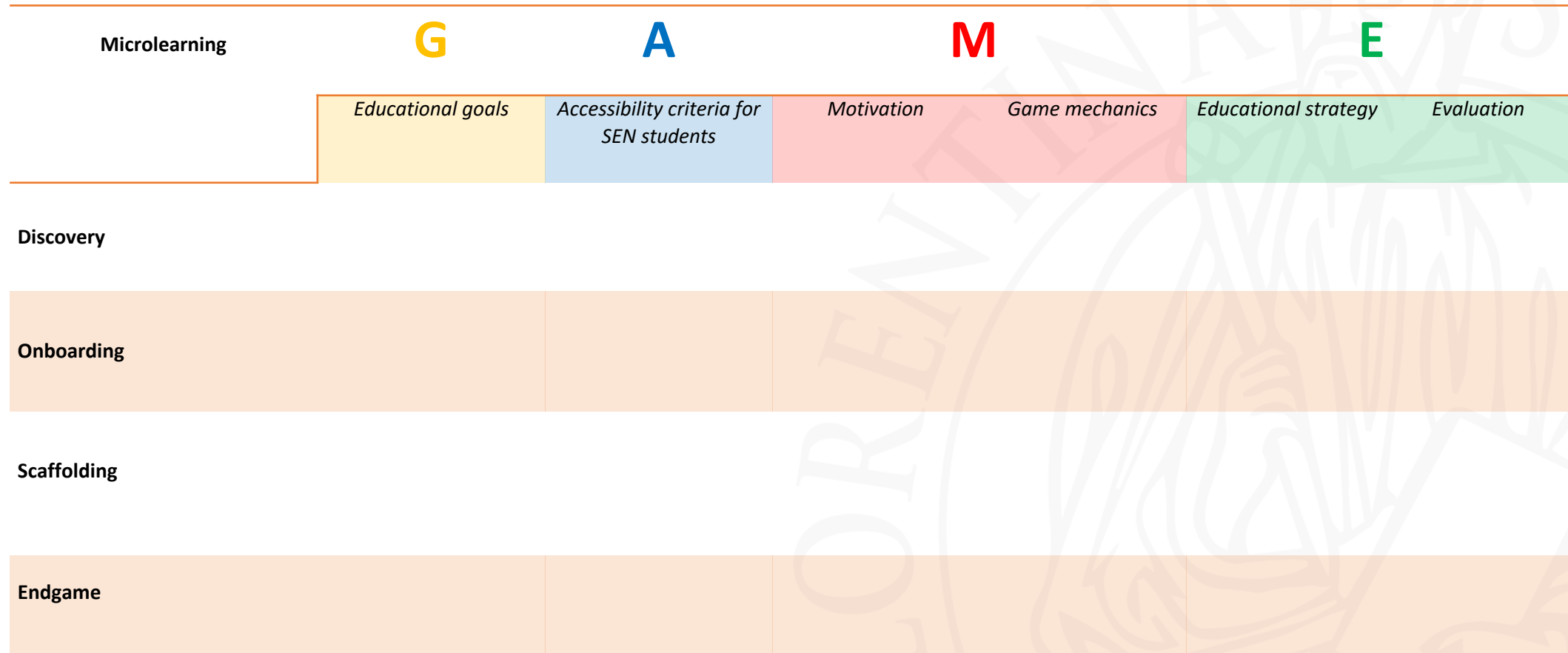


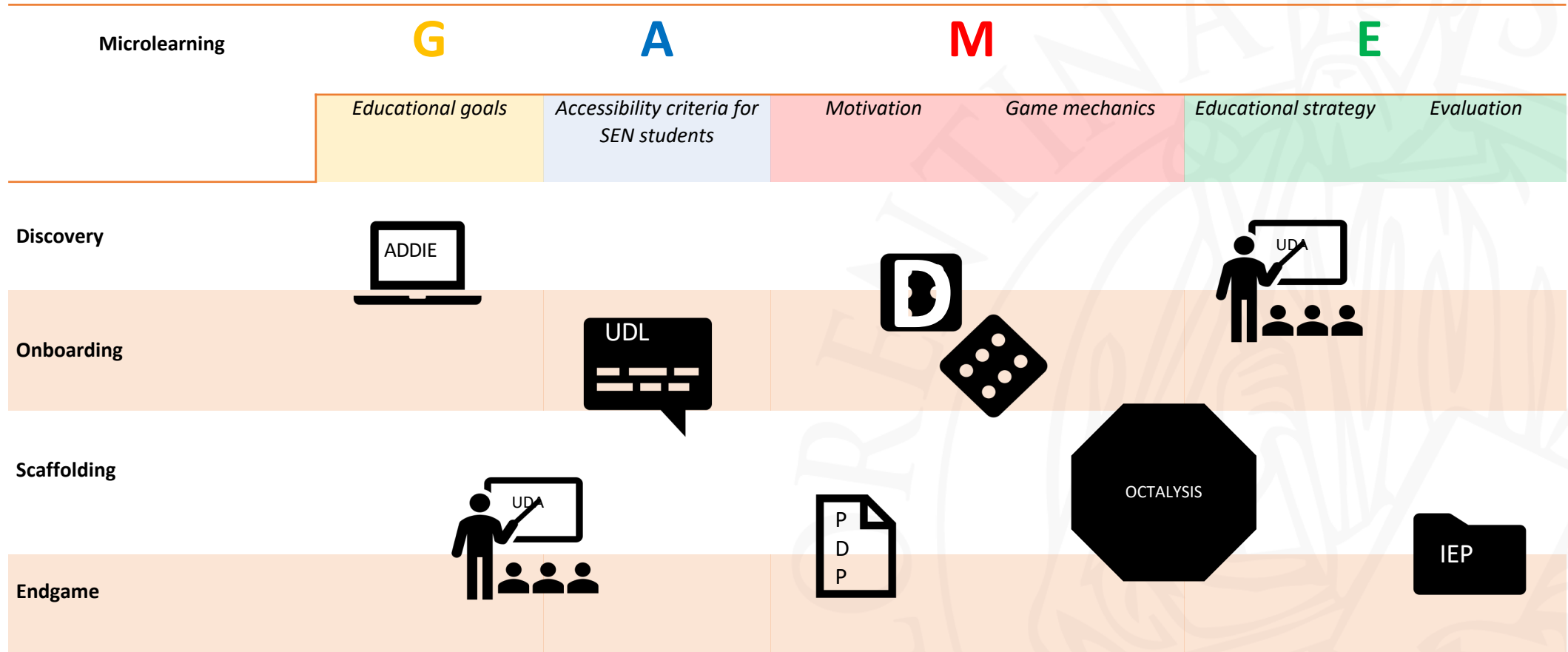
G.A.M.E. is a **tool aggregator** that collects learning and game design tools already in use.

Teachers and educators can have at their disposal a summary of the main design elements related to inclusion and gamification.



GAME Model







Classroom description

Number

[ADDIE-A] [D6-3] [UDA]

Age

[ADDIE-A] [D6-3] [UDA]

Background

[ADDIE-A] [D6-3] [UDA]

Specific characteristics

[IEP]

[ADDIE-A]

[D6-3]

[UDA]

Observation

[IEP] [PDP]

[ADDIE-A]



Are you ready to discover the steps
of the GAME model?

Let's
play!

What is G?





Goals

General goals

[UDA]

[PEI] [PDP]

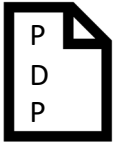


Specific goals

Topics and subjects

[IND.NAZ.CURR]

[UDA]



European competencies

[IND.NAZ.CURR]

[UDA] [D6-1]





DEFINE GOALS

They must be concrete

They must describe the expected behavior

- What do you want your players to do?
- What are the criteria that will allow you to measure their actions?



What is A?

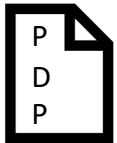




Accessibility

Making

[UDL-I]
[IEP] [UDA]
[D6-4]
[ADDIE-Dev]



Fruition

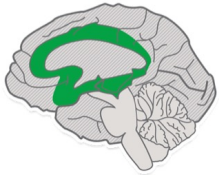
[UDL-II] [PEI] [UDA]
[D6-6] [ADDIE-I]

Universal Design for Learning Guidelines

The UDL Guidelines are a tool used in the implementation of Universal Design for Learning. These guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities.

[Visit the UDL Guidelines](#)

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

[Explore Engagement](#)

RECOGNITION NETWORKS:
THE **WHAT** OF LEARNING

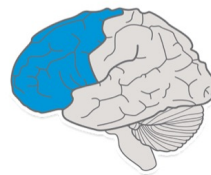


Representation

For resourceful, knowledgeable learners, present information and content in different ways.

[Explore Representation](#)

STRATEGIC NETWORKS:
THE **HOW** OF LEARNING



Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

[Explore Action & Expression](#)

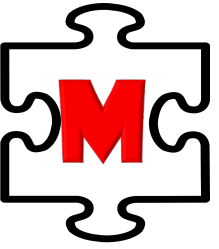
ACCESSIBILITY CRITERIA

The proposed activity must be accessible, in terms of:

- **usability**
- **comprehension**

What is M?





Motivation

Topics development

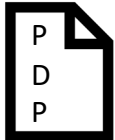
Description

Core drive
[OCTALYSIS]

Prerequisites

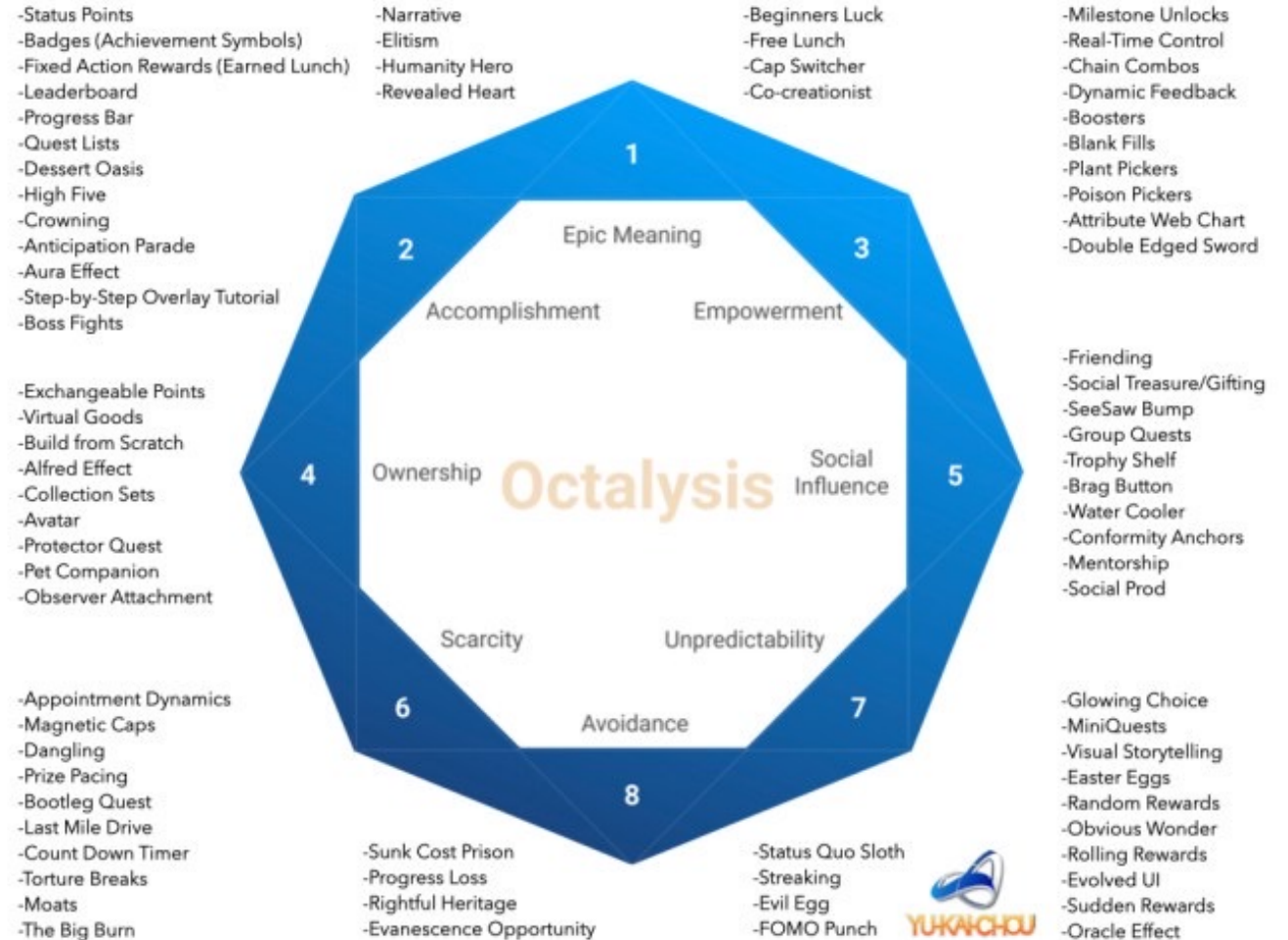
Main topic

[UDL-III] [PEI] [D6-5] [UDA]



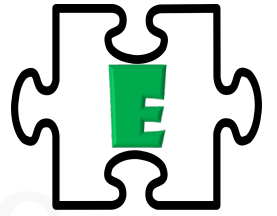
MOTIVATION

Motivation is the internal feeling that drives a person to act to achieve a particular goal.



What is E?





Environment

Phases (microlearning)

[D6-4] [UDA]

Tools

[ADDIE-E] [PEI]

Educational strategies

[UDA]

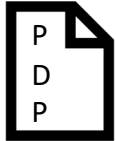
Game elements

[D6-6]

Timing

Methodologies

Evaluation





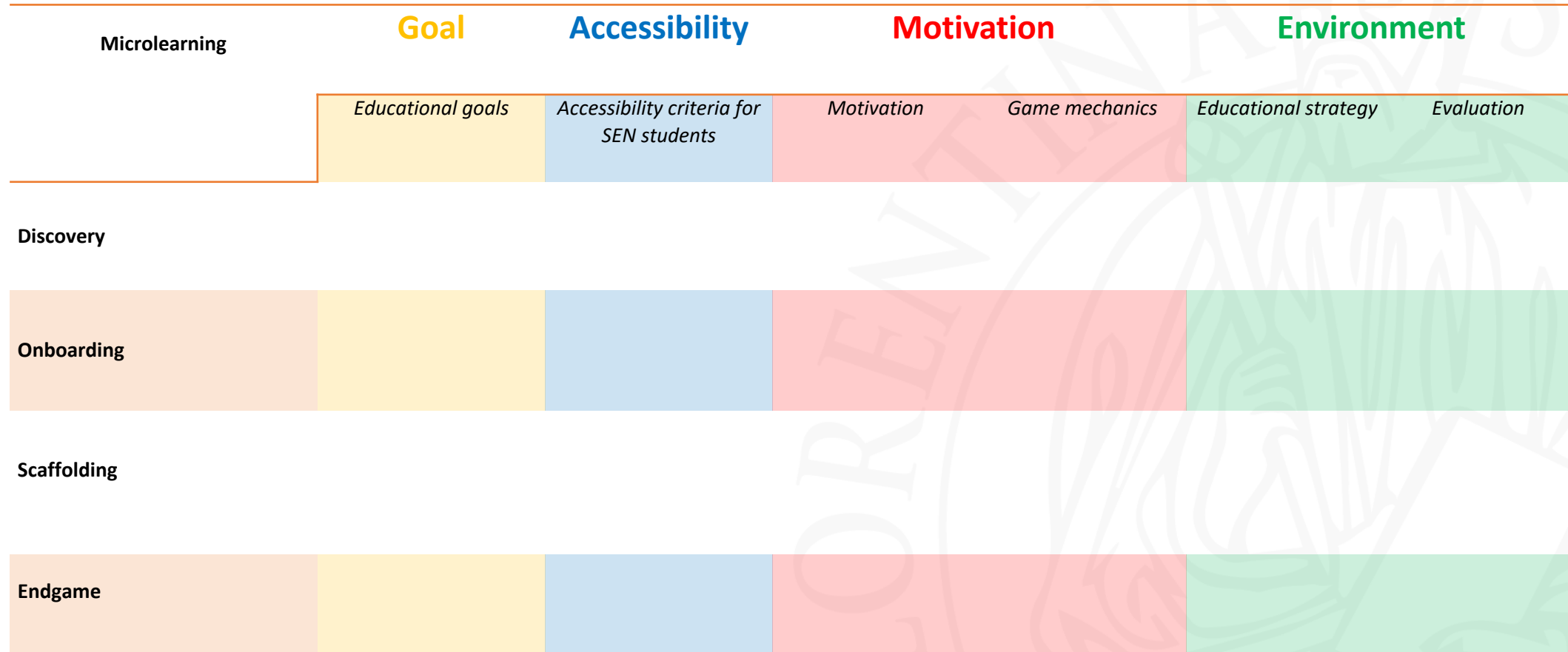
ENVIRONMENT

The construction of the learning environment presupposes:

- The identification of the **educational strategies** in order to achieve the goals
- The identification of **evaluation criteria and tools** to verify the achievement of the goals



G.A.M.E.



Thank you!

During the in-person training we will learn how to use this model with a board game.

See you in Athens!

