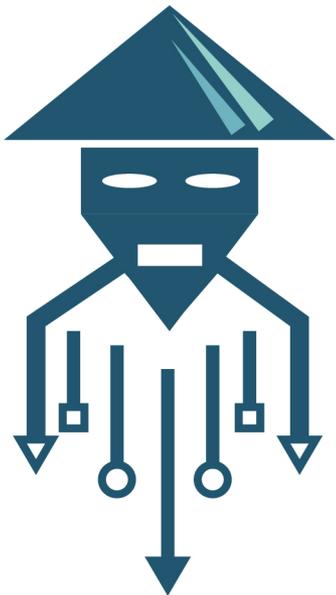


# Part 2 - A1.1

## The concept of gamification and its basic elements



NEET SYSTEM

Online Educational Escape Rooms to  
Re-engage ESLs and NEETs

# Games across history

The effect games have on society has a rich and fascinating history as the paradigm of adopting games in some form can be traced back to the earliest civilizations existed hundred thousand years ago; from board games that have been played in Egypt at 3500 BC (Clark et al., 2016) to the games played among the Indigenous Australians (Edwards, 2009).





**Ball games?**

**Running games?**

**Games with the body?**



**Board games?**

**Mind games?**

**Can you think of some games that you  
have played when you were young?  
Do you know their origin?**

## According to the History Channel Ancient Egyptians loved board games.

*“After a long day’s work along the Nile River, Egyptians often relaxed by playing board games. Several different games were played, including “Mehen” and “Dogs and Jackals,” but perhaps the most popular was a game of chance known as “Senet.” This pastime dates back as far as 3500 B.C. and was played on a long board painted with 30 squares. Each player had a set of pieces that were moved along the board according to rolls of dice or the throwing sticks. Historians still debate Senet’s exact rules, but there is little doubt of the game’s popularity. Paintings depict Queen Nefertiti playing Senet, and pharaohs like Tutankhamen even had games boards buried with them in their tombs”*

*History Channel, 2018*



**Queen Nefertiti Playing Senet ca. 1279–1213 B.C.**

Nina de Garis Davies

Image source: [www.metmuseum.org](http://www.metmuseum.org)



**According to Queensland Government traditional games were played by Indigenous children in many different parts of Australia.**

*One of the games that were played was “Weme”. It is a stone-throwing game observed in central Australia. It is similar to bowls, but involves trying to knock a ball outside of a designated circle.*



**Skills?**

**Teamwork?**

**Feelings?**

**21<sup>st</sup> century?**

**Characteristics?**



**What is the first thought that comes in your mind when you hear the word “game”?**



# What is a game?

A general definition of a game is given by (Schell, 2008) as follows:

*"a game is a problem-solving activity, approached with a playful attitude"*

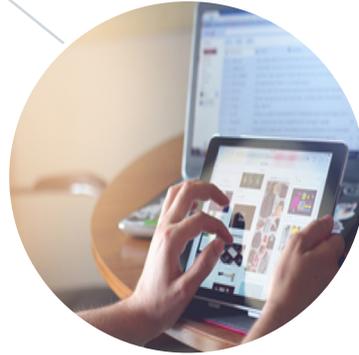


# The term game on the 21<sup>st</sup> century

- ◎ The term game in the modern era has evolved. In detail, during the 21st century, the concept of play, due to the rapid technological advancements, has taken on another importance in the rise of the digital revolution (Clarke et al., 2017).



# The term game on the 21<sup>st</sup> century



In particular, the onset of the digital revolution brought with it computer-based technologies, such as video games and simulations that are being openly available to a large proportion of the human population (Clarke et al., 2017).

*Shifting from games in general to computer games, one of the biggest differences that we can spot is that computers enhance the “play experience” which is what people want most out of games (Prensky, 2001, p. 18).*

# The elements of games (1)

According to Prensky (2001) computer and videogames are potentially the most engaging entertainment in the history of mankind due to a combination of twelve elements which he summarizes as follows:.

Games are a form of fun.

That gives us enjoyment and pleasure.

Games are form of play

That gives us intense and passionate involvement.

Games have rules.

That gives us structure.

Games have goals.

That gives us motivation.

# The elements of games (2)

According to Prensky (2001) computer and videogames are potentially the most engaging entertainment in the history of mankind due to a combination of twelve elements which he summarizes as follows:.

Games are interactive.

That gives us doing.

Games are adaptive.

That gives us flow.

Games have outcomes  
and feedback.

That gives us learning.

Games have win states.

That gives us ego gratification.

# The elements of games (3)

According to Prensky (2001) computer and videogames are potentially the most engaging entertainment in the history of mankind due to a combination of twelve elements which he summarizes as follows:.

Games have conflict/  
competition/challenge/opposition.

That gives us adrenaline.

Games have problem solving.

That sparks our creativity.

Games have interaction.

That gives us social groups.

Games have representation  
and story.

That gives us emotion.

# The attractiveness of computer games

Some of the reasons why people find computer games attractive and satisfying may be the following:

- ⦿ they are typically faster and more responsive;
- ⦿ they can simulate the physics of shooting in space, or combining all the factors in flying an airplane, or considering the millions of possibilities in puzzles or strategic contests;
- ⦿ they are capable of more, better and far more varied graphic representation;
- ⦿ gamers can play at different levels of challenge and
- ⦿ they can generate and allow huge numbers of options and scenarios (Prensky, 2001, p. 5).



**Skills?**

**Teamwork?**

**Feelings?**

**21<sup>st</sup> century?**

**Characteristics?**



**What is the first thought that comes in your mind when you hear the word “educational game”?**

# What is an educational game?

Specifically, Tang & Hanneghan (2015) provide a definition of an educational game which can be described as follows:

*“educational game also known as instructional game takes advantage of gaming principles to gamify technologies in order to create engaging educational content”*





Educational games are

*“a viable alternative to existing computer-aided learning technologies that can assist in persuading and encouraging digital natives to acquire knowledge”*

*Tang & Hanneghan, 2015*



# Gamification & Game-based learning

The use of games or gamification for enhancing the teaching and learning processes so to have a positive impact on student's learning is an approach which has recently started being referred to as game-based learning (GBL) (Clarke et al., 2017).

The introduction of the term GBL in educational research has started to appear strongly connected to digital technologies since the early 2000s when Prensky (2001) suggested the term *Digital Game-Based Learning*, which influenced the way in which the academic community “worked upon, developed and perceived the required conditions of GBL, particularly in relation to the requirement of technology” (Clarke et al., 2017, p.74).



# The term game on the 21<sup>st</sup> century

Tang, Hanneghan and Rhalibi (2009) offer a definition of GBL which follows a digitally oriented perspective:

*“Games-based learning takes advantage of gaming technologies to create a fun, motivating, and interactive virtual learning environment that promotes situated experiential learning (p.1).*



# The term game on the 21<sup>st</sup> century

Also, Clarke et al. (2017) suggest that game-based learning is an approach which refers to:

*“the paradigm of adopting games and play as systems for representing and simulating real-life conditions, imparting knowledge and moral teachings, and generally nurturing social evolution” (p. 73).*



# Gamification & Game-based learning

Although the terms game-based learning and gamification are frequently used interchangeably there are some differences. According to Tandon (2017):

*“In **game-based learning**, game is part of the learning process. It is applied at a product level, in a course, module or topic, to meet a specific learning objective. The aim is to help learners understand a concept, learn a discrete skill or check learners’ understanding of a concept (through assessment). In game-based learning, the content to be mastered is presented in the form of a game, through features such as simulation, competition, conflict and so on.*”

*On the other hand, in **gamification**, the learning process as a whole is turned into a game. It is applied at the system level, where the complete pedagogical system or the learning management system is designed as a game. In this case, game elements may manifest in the form of badges awards, or levels that learners achieve/collect as a result of completing a learning task.”*

Source: Tandon, R (2017). *7 Frequently asked questions about gamification*. Available at: <https://elearningindustry.com/questions-about-gamification-7-frequently-asked>



## Questions for reflection

- ◎ Which do you think are the elements of a well-designed game?
- ◎ How can games help students learn?
- ◎ Which skills can be developed through a gamified learning environment according to the subject matter that you teach?
- ◎ Are game-based activities suitable for all students?

# Thanks!

## Any questions?





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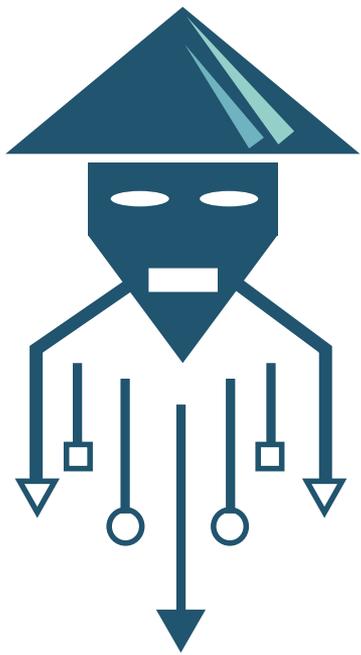
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