

Educational gaming



Context

Educational games are intentionally designed for the purpose of education or have educational values. They are created to help learners understand concepts, acquire specific knowledge, and develop problem solving skills as they play games. It is easy to find apps or short games that allow students to complete exercises that answer the needs of the school curricula.



The role of educational games is not to replace a traditional learning system, but to enhance this process by helping and supporting students in acquiring a set of skills useful not only in the classroom but also in preparing them for personal and professional development.



Why use video games in education?

Despite receiving negative publicity in the past few decades, research has shown that video games can be beneficial for education:

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- Learners develop patience skills and persistence in completing challenges, through the repetition of levels.
 - Learners develop problem-solving skills.
 - Video games 'teach' learners to strategize logically to complete tasks.
 - Learners develop spatial reasoning skills by moving along dimensional worlds.
 - Acquiring a skill in a video game, then applying it later on to a different challenges can help the education process. It helps individualized learning – a process of teaching in which everything (content, pace, instructional technology) is based on the interest and ability of the learner.
 - Video games can be stress relievers and can help to calm an stressed out learner.
 - Learners learn to take decisions based on ethical and moral judgment.
 - Video games can teach a learner about failure and how to cope with it.
 - Learners can develop collaborative and team-working skills.



Video games and inclusion



Video games are very adaptable tools that can be used to enhance motivation among all learners, including those with specific learning disorders. They can be played at the **student's rhythm**, thus, **avoiding feelings of stress, anxiety, or boredom**.

Research has shown that video games can positively influence the development of certain skills like **reaction time, decision making, social skills, and spatial abilities** as well as increase concentration in people with intellectual or behavioural disorders.



Choosing the right video game



Based on students' profiles



Personal characteristics (age, personality, learning disorders, disability): Most published games, whether they are free or not will provide an **age range** on their games. When it comes to personality, some students prefer games focused on **difficulty and competition** such as racing or sports games, whereas others might prefer **narrative or storytelling** focused games. Then think of **accessibility**, does a specific games requires lots of manipulation? Are the rules clear from the beginning?

Learning preferences and social factors: Preferences and social factors can include: interests, learning styles, intelligence preferences, production styles, preferences for individual tasks or group tasks, engagements in after-school activities, interpersonal skills, etc.



Based on the resources available



Smartphones/tablets: Apple, Android, and Windows have good processors and app stores with games. While they have the advantage of being portable and popular (most students have them), there are some limitations in their use for gaming: small screen affecting graphical intensity, limits of the touchscreen, poorer quality and more.

Computers: Offer an advanced gaming experience. While there are also tailored made gaming computers, a regular computer supports a variety of video games. If your computer can't handle video games, several companies have cloud gaming offers and some of them offer free limited plan.



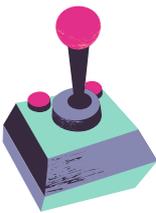
Ideas of Educational games

This war of mine, by 11 bit studios tells the story of the Siege of Sarajevo (1992-1996) from the perspective of Bosnian civilians living in the fictional city of Pogoren, Graznavia.

Enterre-moi, mon amour, by The Pixel Hunt, ARTE France and Figs helps to make people understand what it is like to flee from war.

Peacemaker, by Impact games Peacemaker is a government simulation game during which the player does not only learn about the Israeli-Palestinian conflict, but actively engages in peace making.

Among Us by Innersloth became very popular since summer 2020. It is a game for 4 to 10 players, either local or online. The graphics and mechanics of this game are rather simple as the focus is put on cooperation and communication.



Resource

Discover the **Gaming4Skills** Project which aims at developing practical guidance for teachers to use video games in the classroom for cross-curricular teaching:

<https://www.gaming4skills.eu/>