The Power of Video Games in Education

Video games have emerged as compelling tools for education, blending learning with entertainment in ways that resonate with today's students.

1

Digital game-based learning is widely used by teachers in the United States.



of K-8 teachers use video games to teach various lessons in their classroomsⁱ



of K-12 teachers have found that video games have a positive impact in the classroomⁱⁱ

2

Video games boost student engagement.

Video games can create immersive and interactive environments that engage students, making learning both enjoyable and effective. A survey of K-12 teachers in the United States found that educational video games can be effective in several ways, including:



Motivating students



Differentiating instruction with games of varying difficulty for different students



Helping simplify complex topics

Girls who play video games are three times more likely to pursue STEM careers than those who don't.iv

"Unlike other teaching resources and media, educational games are more like providing a dimension space for learners, in which learners actively explore and practice, and even forget that this is a learning process.

[...] they can get rid of the limitations of the real-life situation and give learners a more comprehensive and high-quality experience."

√



3

Video games improve cognition, comprehension, and other soft skills.

In addition to STEM skills, playing video games develops soft skills that help students meet real world challenges. Americans agree video games can improve:



Problem-solving skills



Teamwork and collaboration



Adaptabilityvi

A literature review in Procedia Computer Science showed that video games improve cognitive skills and decision-making:



"Cognitive skills such as perception, attentional control, and decision-making improves when subjects were trained with video games. [...] People with professions such as nurses and doctors showed improved decision-making and risk assessment when trained with serious simulation games. High school and undergraduate students who played video games exhibit better results when given tasks related to cognitive abilities compared to students who do not play video games."

"The effects are thus long-term, in line with the action video game strengthening the ability to learn how to learn."

4

Video games promote collaboration and creativity.



Modern video games foster collaboration and creativity, encouraging students to work together to solve challenges or build virtual worlds. Games such as *Minecraft*, which is often used in educational settings and features an educational edition specifically for teachers, have been shown to improve learning outcomes in students.

A 2021 study in International Journal of Game Based Learning "[R]evealed *Minecraft* to be **beneficial in terms of increased motivation**, **language development**, **and academic learning** in subjects such as science and history. *Minecraft* play also supported the **development of social skills**, **including communication**, **sharing**, **collaboration**, **and leadership**. The evidence favours an informed and guided employment of *Minecraft* for improved opportunities for learning and engagement in education.^{ix}



Sources

i Level up learning: A national survey on teaching with digital games.

ii 2025 Entertainment Software Association Consumer Report.

iii ibid.

iv <u>Girls' video gaming behaviour and undergraduate degree selection:</u> A secondary data <u>analysis approach</u>.

v To learn scientifically, effectively, and enjoyably: A review of educational games.

vi 2025 Essential Facts About the U.S. Video Game Industry.

vii <u>Using Video Games to Improve Capabilities in Decision Making and Cognitive Skill: A</u> <u>Literature Review.</u>

viii Enhancing reading skills through a video game mixing action mechanics and cognitive training.

ix Minecraft in Education Benefits Learning and Social Engagement.

