

ECCE LUDUS

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Website article 1		
Article title	What is the ECCE LUDUS project?	
Content	The ECCE LUDUS project is an Erasmus+ KA2 project, co-funded by the European Union and the Italian national agency INDIRE. The project started in September 2023, and will conclude in August 2025. Still, you will be able to access all its results online even after the project ends!	
	The project combines the expertise and collaboration of 4 partner organisations, 2 secondary education school, and 1 university from 5 countries	
	 Escape4Change (IT) – escape4change.com Challedu (EL) – challedu.com GoINNO Inštitut (SI) – vseuk.si Consultoría de Innovación Social (ES) – cis-es.org Istanbul Universitesi Cerrahpasa (TR) – istanbulc.edu.tr Vefa Lisesi (TR) – vefalisesi.meb.k12.tr Instituto Istruzione Superiore Santorre di Santarosa (IT) – iissantorre.gov.it 	
	By combining formal and non-formal education possibilities among the partners, the project envisions to reach students, teachers, and trainers all over Europe, to learn more about how to use escape rooms and interactive and engaging methodologies for their practices.	
	After a very productive year of 2024, the partners are in the final steps of the project, finalising the online escape room of ECCE LUDUS. The escape room allows for teachers to create an escape room for their own topic and adapted to their students, and students can then join and experience a new and motivating way of learning.	
	In the upcoming months, the partners will host several testing and training sessions that allow teachers and students to try the escape rooms and even experience them in full Virtual Reality (VR), guided by the project partners.	

All project results will be available on the website in English, as well

as all partner languages (Italian, Turkish, Spanish, Slovenian,

Greek).



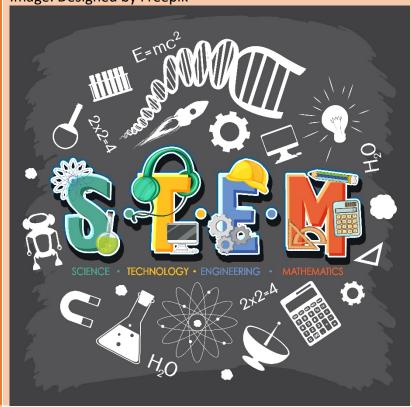
Want to know more? Follow us on Social media (Facebook, Instagram) or write an email to your national partner!

Website article 2

Article title STEM vs STEAM: What is the difference?

Sources https://www.ucf.edu/online/engineering/news/comparing-stem-vs-steam-why-the-arts-make-a-difference/

Image: Designed by Freepik



Content

To start in a simple way:

STEM \rightarrow Science, Technology, Engineering, Mathematics STEAM \rightarrow Science, Technology, Engineering, the Arts, Mathematics

But what does this mean in practice? Let's first explore the concept of STEM and STEM learning.

STEM focuses on providing learners with the skills and competences in the subjects, with sub-categories being topics such as statistics, biology, economic, agriculture, psychology, and aeronautics, to name a few. Through the promotion of STEM subjects and learning in the last few years, aiming at a STEM career has become more and more interesting for students.

A big focus of STEM is on innovation and change, improving jobs, inventions, and practical knowledge and habits, relating to STEM in our society.



And then what is STEAM?

It shows how popular STEAM education has become when search engines online start showing you STEAM education instead of actual steam when you search for "What is STEAM?" It already differentiates both.

STEAM pays more consideration to soft skills and the Arts, and how creative skills, such as design and writing can further improve the productivity and innovation of learning, our society and economy.

But what is the actual difference between both?

Aside from the obvious inclusion of another discipline in STEAM, the focus of both is slightly different.

STEM is focused on the scientific and natural sciences between the subjects, aiming to enhance innovation and progress in the subjects.

In STEAM, learning includes hard and soft skills, and revolves around solving problems and collaboration.

In ECCE LUDUS, while escape rooms can teach STEM subjects and core messages, we want to focus on the STEAM and collaboration topics, improving the learning experiences and sustainability of students and the practices of teachers across Europe.

Sources

"Escape Rooms Are Video Games Come to Life," Time

"Unlock Thrills at Escapology Tampa," Axios

"Are Educational Escape Rooms More Effective Than Traditional Lectures for Teaching Software Engineering? A Randomized Controlled Trial," arXiv

"The Anatomy of Social Dynamics in Escape Rooms," arXiv

Image: Pixabay





Content

Escape rooms have captivated audiences worldwide, blending mystery, challenge, and collaboration into immersive experiences. Similar concepts of escape rooms have been going around worldwide since over 20 years. With the term of "Escape rooms" originating in Kyoto in 2007, these live-action games task participants with solving puzzles and uncovering clues to achieve specific objectives within a set time limit, often to "escape" the room.

The allure of Escape Rooms...

The intrigue of escape rooms lies in their ability to transport players into diverse narratives—be it a haunted mansion, a spy mission, or a historical adventure. This immersive storytelling, combined with tactile problem-solving, offers a unique form of entertainment that appeals to our innate curiosity and desire for challenge. Moreover, the collaborative nature of these games fosters teamwork, communication, and a shared sense of accomplishment.

...and their educational potential

Beyond entertainment, escape rooms have emerged as innovative educational tools. By integrating curriculum-based challenges into game mechanics, educators can enhance student engagement and learning outcomes. A study comparing traditional lectures with educational escape rooms in software engineering education found that students participating in escape rooms demonstrated significantly higher knowledge acquisition and retention.

Furthermore, escape rooms serve as valuable environments for studying social dynamics and collaborative problem-solving. Research utilizing escape rooms as social laboratories has provided insights into team interactions, communication patterns, and the impact of group dynamics on task performance.

Escape rooms, with their blend of mystery, challenge, and collaboration, offer more than just entertainment. They present opportunities for experiential learning, team building, and social research, making them a multifaceted tool in both recreational and educational contexts.

Article title	Can games be used for educational purposes?
Sources	Brunel University of London. "Gaming in the classroom improves
	teaching and learning."
	WIRED. "Brain Age Boosts Math Skills, Study Suggests."
	BBC News. "Video games could boost university skills, study finds."



<u>Sky News</u>. "Playing computer games 'helps improve children's literacy and overall wellbeing'."

<u>Cambridge English</u>, "Kids are here to play – the importance of games."



Content

Once considered mere entertainment, games have increasingly been recognised as valuable educational tools. Research indicates that integrating games into learning can enhance engagement, foster critical thinking, and improve knowledge retention.

A study by Brunel University London found that incorporating gaming elements into Key Stage 2 science lessons significantly boosted student engagement and confidence in the topic. Teachers reported that students were more focused and collaborative when lessons included interactive gaming resources, rather than other more traditional methods.

Similarly, a UK study involving over 600 primary school students demonstrated that daily sessions with the Nintendo DS game *Dr. Kawashima's Brain Training* led to up to a 50% improvement in maths performance compared to traditional lessons.

Games are not only engaging but also effective in developing essential skills. The University of Glasgow found that playing commercial video games like *Minecraft* and *Portal 2* improved university students' communication, adaptability, and resourcefulness—skills highly valued by employers.

Moreover, educational games can promote literacy. The National Literacy Trust reported that 73% of young people who play video games feel more involved in stories, and 65% believe games help



them imagine being someone else, enhancing empathy and creativity.

The evidence suggests that games, digital or analogue, when thoughtfully integrated into educational settings, can be powerful tools for learning. They offer interactive and engaging experiences that not only make learning enjoyable but also develop critical skills necessary for academic and personal success.

Article title	The difficulties of assessing practical knowledge
Sources	 Udeozor, C. et al. (2024). "Measuring learning in digital games: Applying a game-based assessment framework." British Journal of Educational Technology. (https://bera- journals.onlinelibrary.wiley.com/doi/full/10.1111/bjet.13407)
	 Gomez, M. J., Ruipérez-Valiente, J. A., & García Clemente, F. J. (2022). "A Systematic Literature Review of Game-based Assessment Studies: Trends and Challenges." arXiv preprint. (https://arxiv.org/abs/2207.07369)
	3. All, A., Nunez Castellar, E. P., & Van Looy, J. (2014). "Measuring Effectiveness in Digital Game-Based Learning: A Methodological Review." <i>International Journal of Serious Games</i> . (https://journal.seriousgamessociety.org/~serious/index.php/IJSG/article/view/18)
	 Yaman, H., Sousa, C., Neves, P. P., & Luz, F. (2022). "Implementation of Game-Based Learning in Educational Contexts: Challenges and Intervention Strategies." Electronic Journal of e-Learning. (https://academic-publishing.org/index.php/ejel/article/view/3480)
	 Learnexus. "Game-Based Learning Assessment Demystified: Effective Evaluation Methods." (https://learnexus.com/blog/game-based-learning-evaluation-methods/)
	 Schooling Stories (October 20, 2024). "Navigating the Challenges in Game-Based Learning Effectively". (https://schoolingstories.com/challenges-in-game-based-learning/)





Content

Assessing Practical Knowledge Through Games: Challenges and Considerations

The integration of games into educational settings has opened new avenues for experiential learning. However, evaluating the practical knowledge acquired through such interactive mediums presents unique challenges.

Traditional assessment methods often fall short in capturing the depth of understanding and skills developed through game-based learning. Standardised tests may not effectively measure competencies like problem-solving, adaptability, and collaboration, which are frequently applied in gaming environments. This discrepancy underscores the need for alternative evaluation strategies that align more closely with the dynamic nature of games.

Games often allow learners to approach problems in multiple ways, leading to varied learning experiences. This non-linear progression complicates the creation of uniform assessment criteria. Educators must consider flexible evaluation frameworks that can accommodate diverse learning trajectories while still providing meaningful feedback.

While digital games can track a plethora of user interactions, translating this data into actionable insights is not straightforward. Determining which in-game behaviours correlate with specific learning outcomes requires sophisticated analytical tools and a deep understanding of both the game's mechanics and the educational objectives.

Embedding assessments within games must be done thoughtfully to maintain engagement. Overt testing elements can disrupt the immersive experience, potentially diminishing the educational value. Striking the right balance between seamless gameplay and



effective evaluation is crucial for the success of game-based learning initiatives.

Assessing practical knowledge gained through games is a multifaceted endeavour that challenges conventional evaluation methods. To harness the full potential of game-based learning, educators and researchers must develop innovative assessment strategies that reflect the interactive and complex nature of games.