



ESCAPE ROOMS
FOR DIGITAL ENTREPRENEURSHIP

Workshop report

3-4/12/2024 in Tourcoing (France)



Co-funded by
the European Union



Objectives



- What is the scope of the game?
- How to create a game?
- How to make it inclusive?
- To go further...

In welcoming delegates to the escape room development workshop, objectives for the 2-day session were proposed.

Together, partners aimed to explore the scope and purpose of educational escape rooms, learn how to design engaging and coherent gameplay, and discover strategies for making games inclusive and accessible to all. We'd also highlight tools, resources, and creative techniques to help you take your ideas even further.



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Definition of the scope

Preliminary questions



- Who has already created an ER?
- What is the tech capacity of your organisation (including outside organisation/person who could support the activity)?

Artist



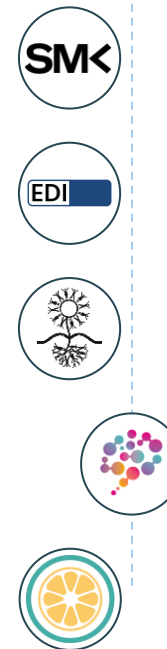
Hacker(wo)man



Craft(wo)man



**Printer
regular or HQ**



**Makerspace
/ workshop**



1. Who has already created an ER?



“Please, share if you or your organisation have previously developed an escape room. What type was it (physical, digital, hybrid), and what was the main purpose (educational, entertainment, training, etc.)? What did you learn from the experience?”

This question helps identify experienced participants who can share insights, common pitfalls, and good practices. Their input can inspire newcomers, highlight diverse approaches, and foster peer learning and mentoring opportunities within the group.

2. What is the tech capacity of your organisation (including outside organisation/person who could support the activity)?



“Could you describe the technological resources available in your organisation for creating escape rooms? This might include access to digital tools, design software, IT support, or potential collaborations with external tech partners.”

Understanding the tech capacity helps tailor project ambitions to realistic tools and support systems. It also encourages resource-sharing and creative problem-solving, such as forming partnerships to fill technical gaps, and ensures that developers choose the most feasible format (e.g., paper-based vs. digital escape room).

Types of escape games



Regular

Board/cards

Videogame

Hybrid

Pro

- ❖ Immersion
- ❖ Variety of maze
- ❖ Easy to split team

- ❖ Easy to “move”
- ❖ Easy to setup

- ❖ Easy to “move”
- ❖ Immersion
- ❖ Attractive medium
- ❖ Easy to setup

- ❖ ...

Cons

- ❖ Crafting/coding skills
- ❖ Logistic: space and unmovable

- ❖ Graphic design skill
- ❖ Restricted space
- ❖ Hard to immerse the players
- ❖ No game master

- ❖ Development skill
- ❖ Material: computer/VR headset
- ❖ Tricky to cooperate
- ❖ Limitation in terms of environment

- ❖ Merge



When designing an escape room, it's important to understand the different formats available.

Each type offers unique opportunities and challenges depending on your goals, audience, and available resources.

Regular (physical) escape rooms



These are live, immersive environments where players solve puzzles in a real-world setting.

They require physical space, props, and often more resources for setup and facilitation. They provide high engagement and sensory interaction but may limit scalability and accessibility.

Ideal for teams with access to space and materials. Great for building teamwork and communication skills through hands-on activities.

Board/card-based escape games



These tabletop games use printed materials, cards, and tokens to simulate an escape experience.

They are portable, cost-effective, and easy to adapt for different themes or audiences. They can be used individually or in small groups and are perfect for classroom or community settings.

A practical starting point for those new to ER design. Encourages creativity with fewer technical demands and supports repeated use with minimal setup.

Digital escape rooms (video game style)



Fully online or app-based experiences using interactive digital platforms.

These games allow remote access and can include multimedia elements (video, sound, animation). They often use branching narratives and clickable interfaces to guide players through virtual puzzles.

Suitable for teams with digital design skills or access to tech support. Enables wide reach and accessibility, especially for remote learners or geographically dispersed groups.

Hybrid escape rooms



A mix of physical and digital elements (e.g., printed materials combined with QR codes, websites, or apps).

This flexible format allows players to engage with both tangible and virtual components, often enhancing the immersive experience without requiring full digital development.

Offers a balanced approach for teams with moderate tech capacity. Encourages innovation by combining the best of both physical and digital worlds.



Choosing the right format: Selecting the right type depends on your audience, objectives, budget, and technical capacity. Exploring these formats helps developers align their creative vision with practical implementation strategies, ensuring accessibility, sustainability, and impact.

Specificities



What are your needs/restrictions, in terms of...



Age	16-18
Group size	(class of 30)
Duration	1h-1h30
Space	Room(s)
Inclusion Handicap	...
Inclusion Thematic	...
...	...



Age	16-30
Group size	6
Duration	2h
Space	Room(s)
Inclusion Handicap	Mental handicap
Inclusion Thematic	Refugees (UA), unemployed
...	Language barrier?



Age	(12)15-25
Group size	Class 15-30 (splitable)
Duration	1h
Space	Room(s)
Inclusion Handicap	...
Inclusion Thematic	...
...	Minorities (ethn)



Age	16-24
Group size	Class 12-21 (splitable)
Duration	1h30
Space	Classroom(s)
Inclusion Handicap	Dys
Inclusion Thematic	...
...	Minorities (ethn)



Age	16-20
Group size	Class 30 (splitable)
Duration	1h-1h30
Space	Room(s)
Inclusion Handicap	...
Inclusion Thematic	...
...	Priority education students

What are your needs and restrictions?



When designing an escape room, it's essential to understand the specific needs and limitations of your target group.

Consider the following aspects and how they shape your game design:

➤ **Age**

What is the age range of your participants? Are they children, teens, adults, or mixed-age groups?

Age affects the complexity of puzzles, themes, language, and content. Knowing this helps developers tailor games that are both engaging and appropriate.

➤ **Group size**

How many people will typically participate at once? Will they work in one group or in smaller teams?

Why it matters: Group size influences the flow of the game, the number of roles or puzzle tracks, and how collaborative or competitive the experience should be.

➤ **Duration**

How long will your escape room session last? Is it a quick 20-minute activity, a 60-minute challenge, or longer?

Time constraints affect the number and depth of puzzles. Developers must balance challenge and satisfaction within the time available.

What are your needs and restrictions?



➤ Space

What kind of space will you use – a classroom, a large hall, an outdoor setting, or online?

The physical or digital setting determines how puzzles are delivered and how immersive the environment can be. It also influences equipment and setup requirements.

➤ Inclusion

Are there any specific accessibility needs to consider (e.g., physical, cognitive, language, or sensory)? How can the experience be inclusive for all participants?

Designing with inclusion in mind ensures that the game is welcoming and playable for diverse audiences, promoting equity and engagement.



Support for future developers: Identifying these factors early helps developers design escape rooms that are realistic, impactful, and adaptable. It promotes thoughtful planning and encourages inclusive, user-centred design, which ultimately leads to more effective and enjoyable experiences for all players.



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Creation of the escape game

Disclaimer!



Using a knowledge from outside the room is tricky!

- No course to integrate knowledge before the game
- Put game elements to remind the knowledge
- Plan specific hints for the game master



Identify the game practicalities



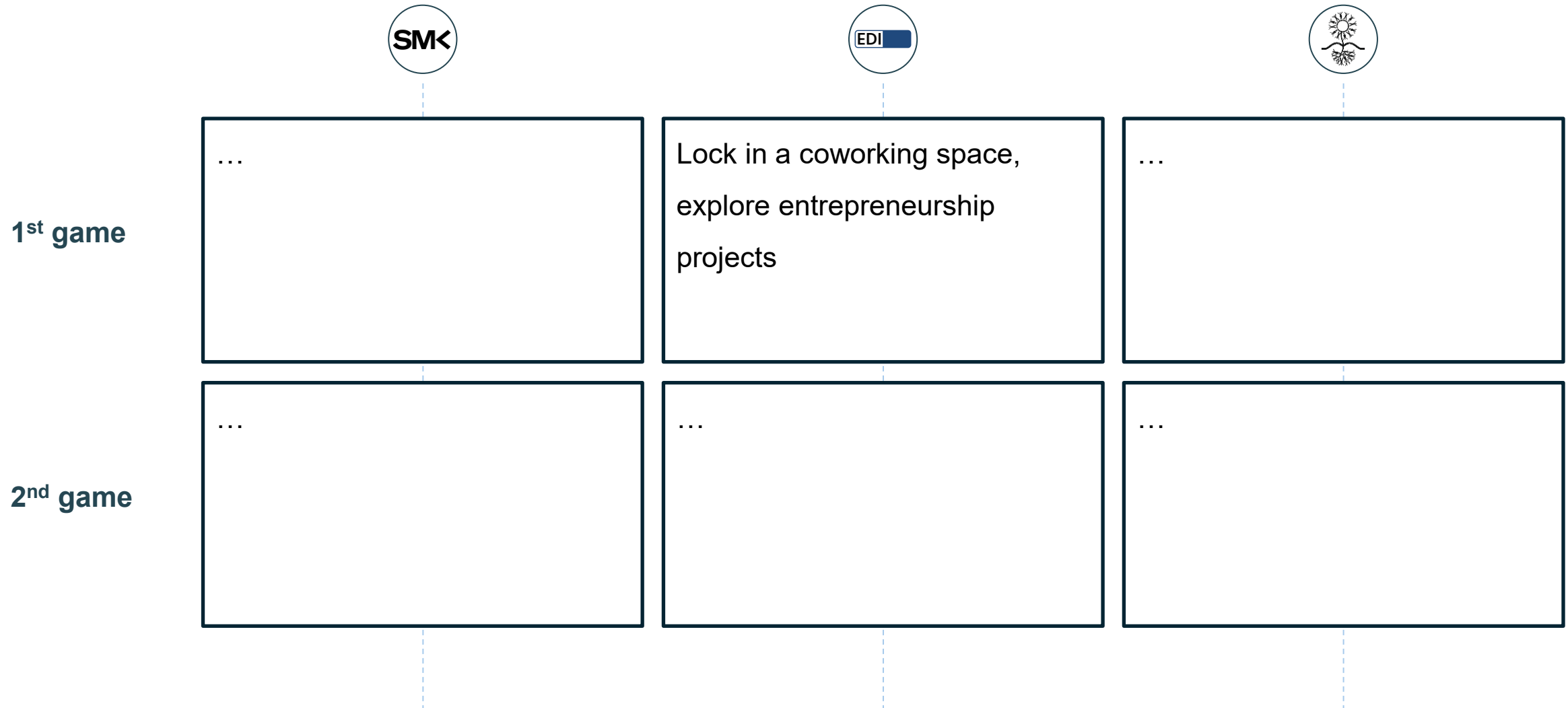
➤ Pedagogical objectives (topic, level, skills)

Digital skills	Using digital skills to take advantage of AI	
Jobs	Personal branding	
Entrepreneurship	Start-ups and innovative entrepreneurship	SM<
Digital skills	Social media marketing (understanding and utilising online tools to promote and create a network; analytics and engagement tracking) : focus on ecommerce	
Jobs	Online influencer / content creator (network dynamics, monetisation strategies, brand collaboration)	
Entrepreneurship	Negotiation tactics and communication strategies to effectively manage and grow business relationships	
Digital skills	Online community building	
Jobs	Video and photo editor	
Entrepreneurship	Management, decision making and social impact assessment of businesses / social businesses	EDI
Digital skills	Ethical Hacking and Cyber Defense	
Jobs	Remote Work and Digital Collaboration	EDI
Entrepreneurship	E-commerce and Online Business Development	
Digital skills	Searching for information online, using the filters, cross reference informations, verifying the sources...	
Jobs	IT developer	
Entrepreneurship	Digital communication in and out the business	

Identify the game practicalities



- **Find a cultural element** (historical or fictional) for the background / environment



Things to keep in mind



The escape game creation

- What are the restrictions of the place / format of your game?
 - What are your technical and/or artistic skills?
 - What are the main pedagogical objectives?
- **Create the main enigmas (2 to 3), including your pedagogical objectives**



Designing an escape room involves balancing creativity with practical considerations. This stage helps you map out the key foundations of your game so it's both effective and achievable.

1. Define your pedagogical objectives



“What is the purpose of your escape room in terms of learning or development?”

- Choose a topic relevant to your learners (e.g., digital skills, history, sustainability).
- Determine the skill level (basic, intermediate, advanced).
- Identify the competencies you want to build (e.g., collaboration, critical thinking, digital literacy).

Why this matters: Clearly defined objectives ensure that each enigma supports the learning goals, keeping the experience meaningful and not just entertaining.

2. Find a cultural or narrative background



“What is the world in which your game takes place?”

- Select a historical event, myth, local legend, or fictional scenario to build your game's theme.
- This background can frame the puzzles and make the experience more immersive and engaging.

Why this matters: A strong narrative helps players connect emotionally with the game and makes learning more memorable. Cultural references also make the game more locally relevant and inclusive.

3. Assess the restrictions of your space or format



“What limitations do you need to work within?”

- Physical space (classroom, outdoors, museum, online platform).
- Time available for setup and gameplay.
- Number of players and facilitators.

Why this matters: Recognising constraints early helps tailor the game’s complexity and format (e.g., tabletop, digital, hybrid), avoiding last-minute redesigns.

4. Consider your technical and artistic capacity



“What skills and tools do you or your team bring?”

- Technical (coding, using digital platforms, printing).
- Artistic (graphic design, storytelling, video/audio production).
- Access to external support (colleagues, local artists, developers).

Why this matters: Knowing your strengths allows you to create a game that feels polished and realistic within your resources. It also helps identify areas for collaboration.

5. Create 2 to 3 key enigmas



“What are the central puzzles that drive the game?”

- Link each enigma directly to one of your pedagogical objectives.
- Ensure puzzles vary in type (logic, decoding, visual, physical) and difficulty.
- Sequence them in a way that builds engagement and supports narrative flow.

Why this matters: These main enigmas form the backbone of your escape room. When done well, they align learning with fun and challenge, ensuring the game is purposeful and balanced.

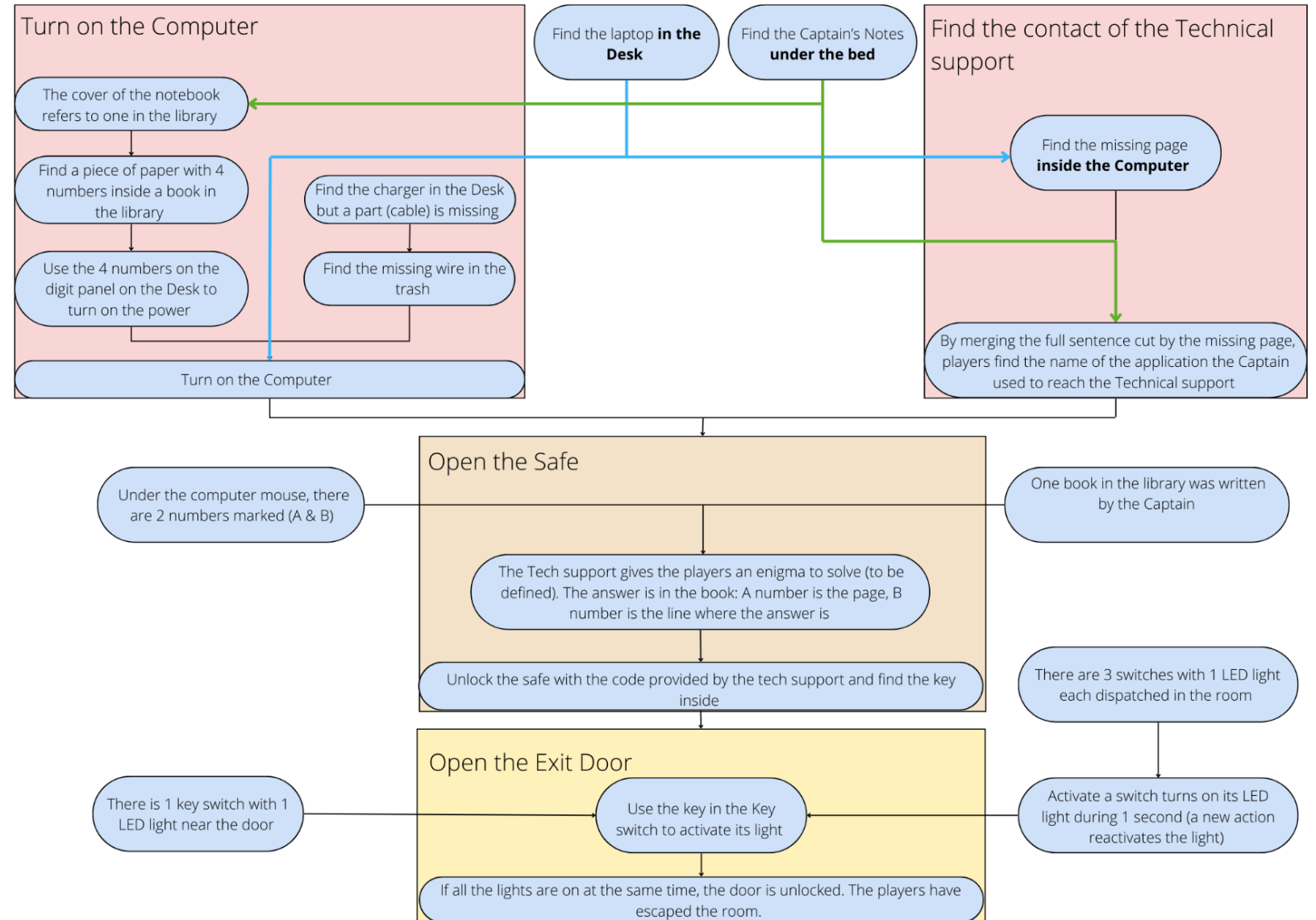


Support for future developers: This structured reflection helps developers design escape rooms that are achievable, relevant, and impactful. It encourages planning around real-world limitations while still allowing space for creative storytelling and meaningful learning outcomes.

How to organise the enigmas



“This maze is a mess”





An effective escape room relies not just on good puzzles – but on how they are connected. Organising enigmas strategically enhances player engagement, flow, and learning outcomes.

1. Sequence with purpose



“Think about the order in which puzzles appear – do they build in complexity? Do they make narrative or logical sense?”

- Start with a simple or introductory enigma to build confidence.
- Follow with puzzles that require collaboration or synthesis of previous clues.
- End with a climactic enigma that ties together key learning objectives.

Why this matters: A clear progression keeps players motivated and reduces frustration. It also mirrors educational scaffolding – moving from basic to deeper understanding.

2. Choose a structure: Linear, Nonlinear, or Hybrid



- **Linear:** Players solve one enigma at a time in a fixed sequence. Good for small groups or beginners. Easier to control pacing.
- **Nonlinear:** Multiple enigmas can be solved in parallel. Encourages teamwork and suits larger groups.
- **Hybrid:** Starts with parallel enigmas that converge to unlock the final puzzle. Balances freedom and narrative control.

Why this matters: Choosing the right structure helps you manage time, difficulty, and group dynamics effectively.

3. Link enigmas to your story and objectives



“Each enigma should serve a purpose in the game world and support your educational goals.”

- Use the narrative to justify each challenge.
- Ensure that solving a puzzle gives players meaningful information or progress.

Why this matters: This creates immersion and helps players make connections between the game experience and the real-world skills or knowledge being targeted.

4. Test for flow and balance



“Playtest to check pacing: Are there slow points? Are any enigmas too hard or too easy?”

- Aim for a rhythm that alternates between quick wins and deeper challenges.
- Allow for moments of collaboration and discovery.

Why this matters: A well-paced game keeps engagement high and ensures that all participants can contribute



Support for future developers: Learning to organise enigmas effectively gives developers a toolkit for designing games that are smooth, scalable, and purposeful. It helps turn a collection of puzzles into a coherent and rewarding experience - both fun and educational.

Example



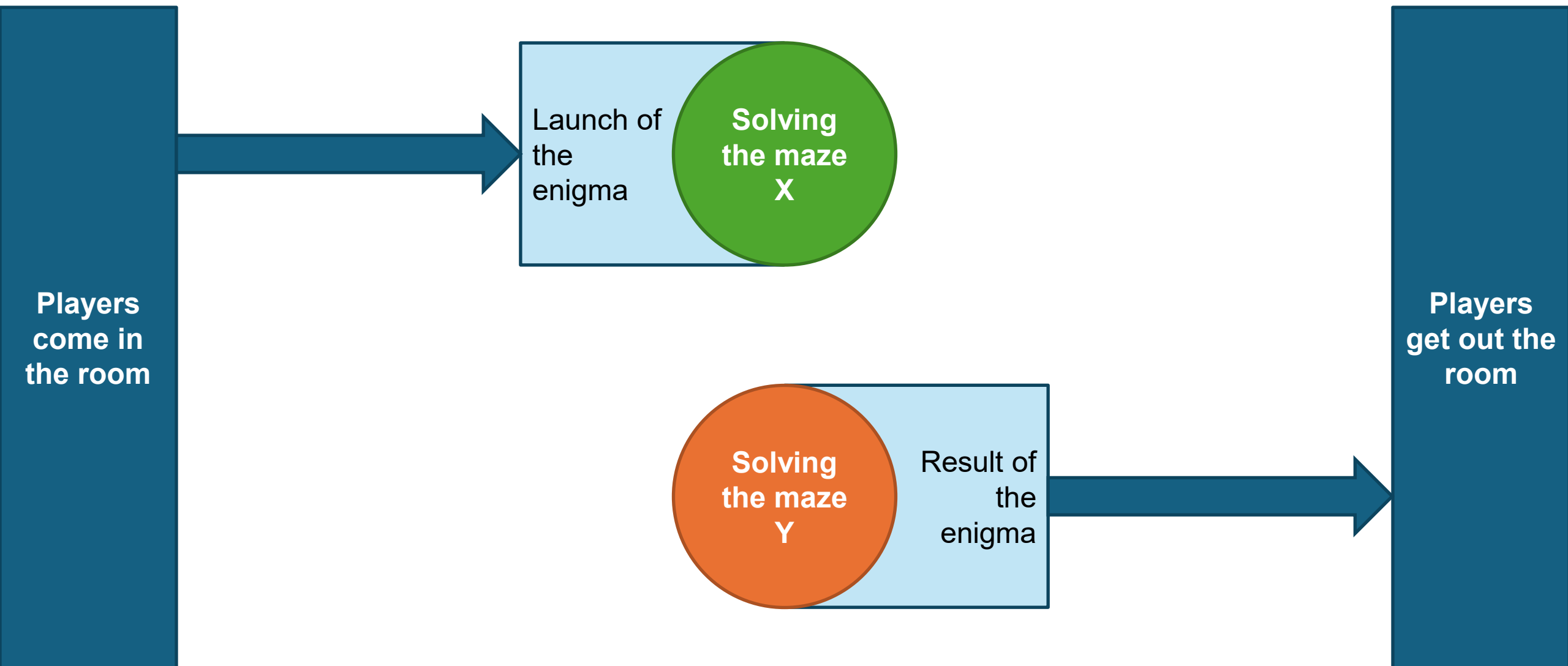
Players
come in
the room

Solving
the maze
X

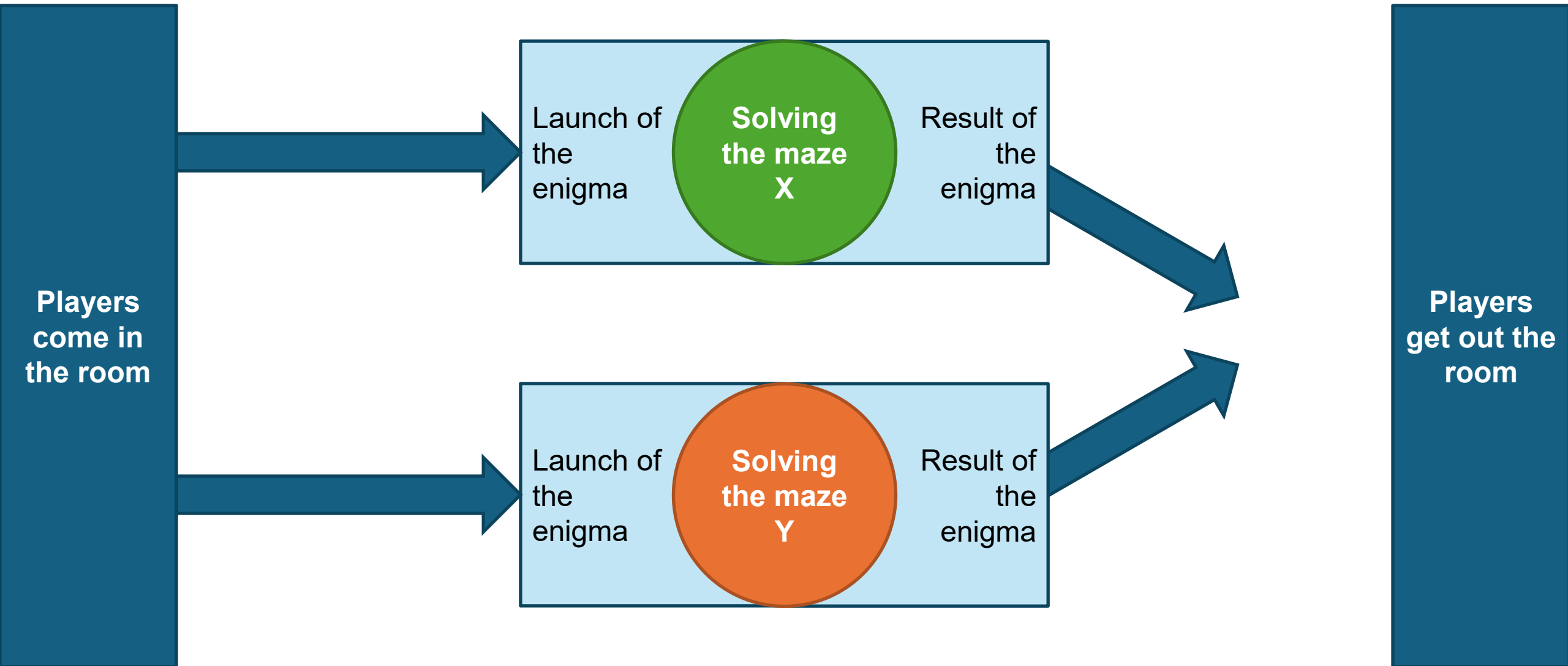
Solving
the maze
Y

Players
get out the
room

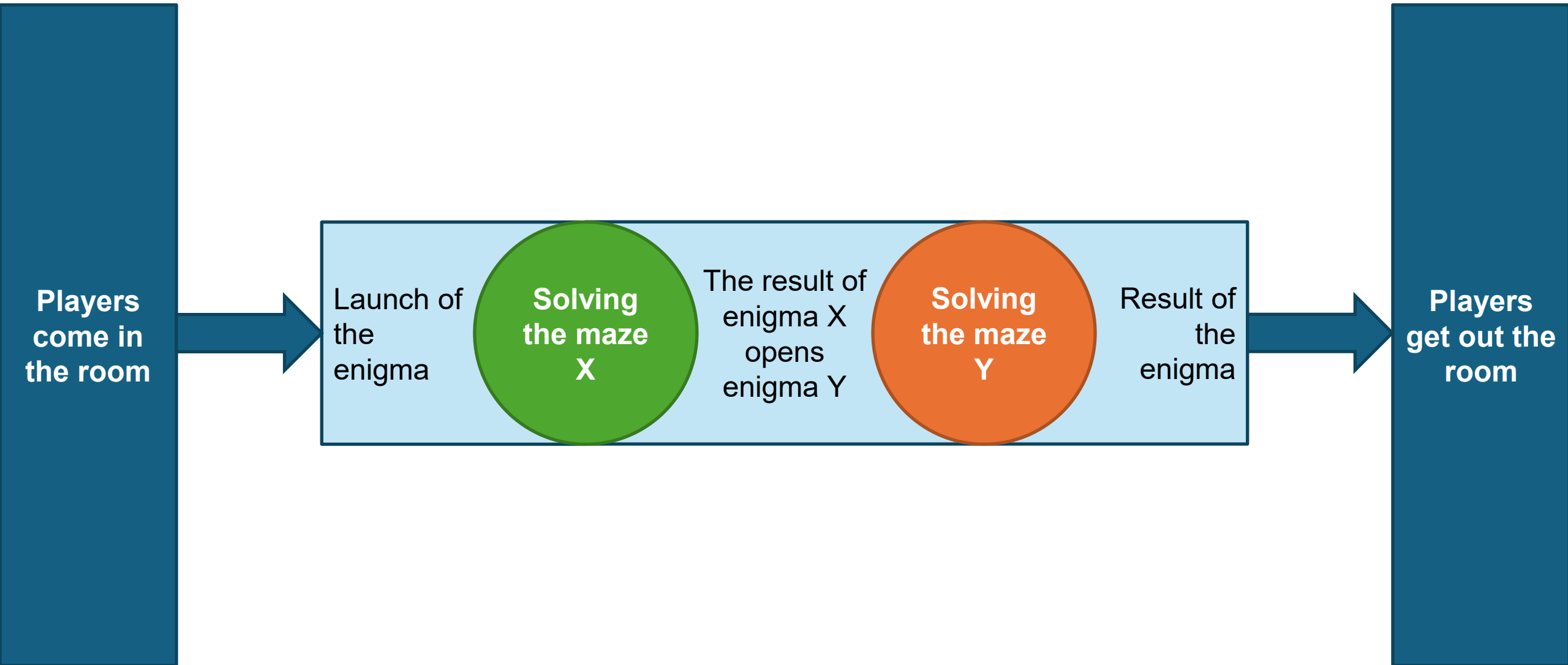
Example



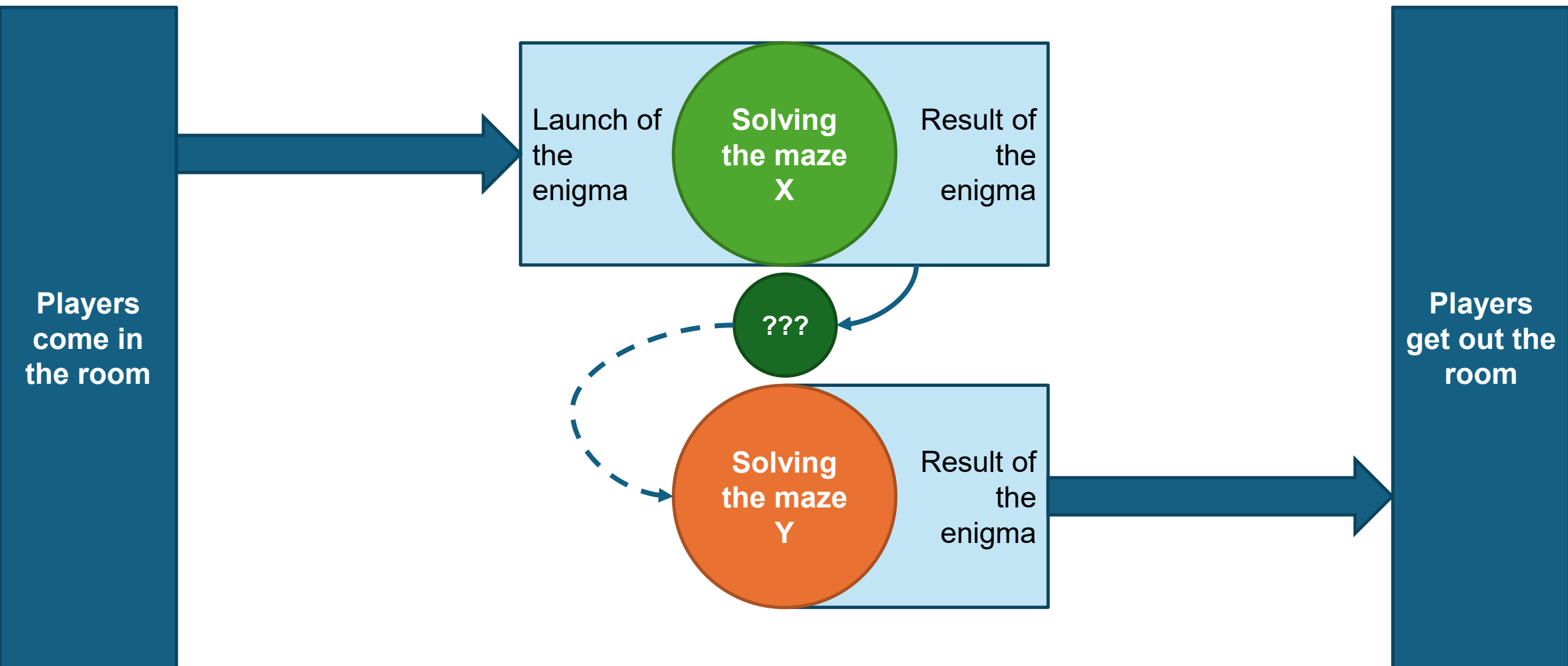
Example



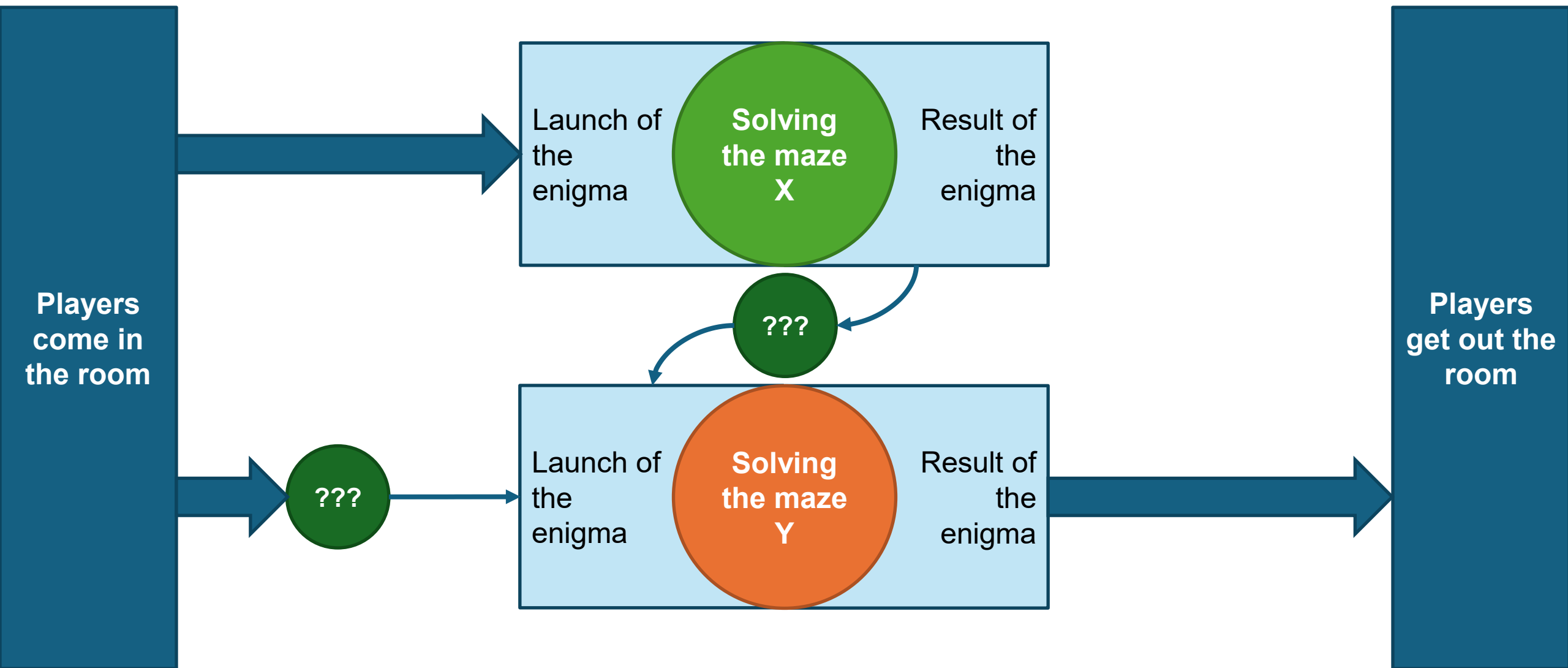
Example



Example



Example





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And the inclusion?

Inclusion in escape room design



- Many aspects of inclusion are good for all students.
 - However, you will never cover all the possible trouble of your players.
- **Solution:** Searching for diversity in the game mechanisms.

Inclusion isn't just about accommodating specific needs – it's about creating experiences where all players can participate, contribute, and thrive. Many inclusive design principles benefit every learner, not just those with identified challenges.

“Inclusive design is good design for everyone.”

However, it's important to recognise that no game can anticipate every possible barrier. Players may have different cognitive, physical, sensory, cultural, or emotional needs – and these can vary widely.

The key: diversity in game mechanisms



Rather than trying to create a “one-size-fits-all” puzzle, focus on offering diverse types of challenges:

- Visual, auditory, tactile, and written clues
- Puzzles that require logic, pattern recognition, creativity, or collaboration
- Tasks that suit different group roles (leader, observer, organiser, problem-solver)

Why this matters:

- Diversity allows each player to find at least one puzzle where they can shine.
- It supports multiple learning styles and access needs without singling anyone out.
- It encourages teamwork by making different strengths valuable.



Support for future developers: Thinking inclusively from the start helps developers design games that are more robust, accessible, and engaging for varied audiences. It promotes empathy, creativity, and flexibility – skills that benefit any educational designer or game creator. Inclusion also encourages reflection on how environments, not individuals, create barriers – and how design can break them down.



Format and layout recommendations

- Favour a Sans Sherif font (Arial, Calibri, Open Sans).
- Favour a size 12 to 14 pt font.
- Avoid underline or italic.
- Favour an alignement on the left, don't justify the text.
- As much as possible, use visual tags to facilitate the recognition of the text organisation.
- Avoid transparent paper and ensure adequate colour contrast.

Inclusion (running the game)



Recommendations for running an escape game

- Favour the teamwork to overcome difficulties: don't base all your enigmas on the same mechanism (ie. reading/writing).
- If a player feels lost, give them a specific role
 - ie. put away items that have already been used to solve puzzles if they are only used once.

Example of difficulties in a game



- Language difficulties
- Difficulties with motor skills (fine motor skills and mobility)
- Difficulties with maths and arithmetic
- Sensory difficulties (visual, auditory, etc.)
- Emotional problems, phobias
- ...



Inclusion in escape games doesn't just come from the design – it's also shaped by how the game is facilitated. A few thoughtful practices during gameplay can make a big difference in creating an environment where every player feels engaged and valued.

1. Encourage teamwork to overcome difficulties



Avoid designing all puzzles around the same skill (e.g., reading or calculations). Instead, include a variety of mechanisms – visual puzzles, physical challenges, storytelling, sorting tasks, or collaborative decision-making.

This ensures that different strengths are needed and helps players support one another.

2. Give every player a role



If a player appears lost or overwhelmed, offer them a clear and supportive role.

Examples: Organising clues or props.

Keeping track of solved puzzles.

Reading out instructions.

Managing time.

This keeps everyone involved and boosts confidence.

3. Help manage cognitive load



Encourage teams to remove or set aside items that are no longer needed after a puzzle is solved.

This reduces confusion and helps players focus on what matters now.

Possible difficulties to anticipate



When designing or facilitating the game, be mindful of the following challenges some players may face:

- **Language difficulties:** Use simple, clear language in clues. Offer visuals or translations where needed.
- **Motor skills difficulties:** Avoid puzzles that require fine manipulation unless alternatives exist. Make sure the physical space is accessible and navigable.
- **Difficulties with maths or arithmetic:** Don't over-rely on numerical puzzles. Offer options that involve logic, creativity, or storytelling.
- **Sensory difficulties (visual, auditory, etc.):** Ensure there are no flashing lights or loud sounds that could be distressing. Provide alternative formats or prompts if needed (e.g., printed and spoken clues).
- **Emotional challenges or phobias:** Avoid content that could trigger anxiety, such as overly dark rooms, horror themes, or claustrophobic setups. Allow players to opt out of specific tasks without pressure.



Support for future developers: By embedding inclusive practices into game facilitation, developers not only expand the reach and impact of their games but also model empathy and adaptability. These recommendations help foster welcoming environments where every participant has a chance to contribute and enjoy the experience.



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To go further

Next steps?



- **Finalise asap the 1st version**
 - Keep tracking of the roadmap diagram.
 - Perform individual testing of the enigmas.
 - Do a loop on your creation phase.
- **Test your game in its entirety**
 - Check the links between the enigmas and if the duration still fits your restriction.
 - Loop on the creation phase as long as needed.
- **Prepare the Game Master role and the supporting documents**



After the workshop, it's time to bring your escape game to life! Follow these key steps to move from concept to a playable, impactful experience:

1. Finalise the first version



Consolidate all your work – puzzles, narrative, materials – into a complete draft version. Don't wait for perfection; aim for a solid, testable version.

2. Keep track of your roadmap



Use your development roadmap or diagram to monitor progress, ensure all steps are covered, and identify remaining tasks.

3. Test individual enigmas



Before testing the full game, test each enigma independently to confirm it works logically and matches your intended difficulty and learning goals.

4. Revisit the creation loop



Make necessary revisions to puzzles, clues, or flow based on feedback or new ideas. Don't hesitate to tweak what doesn't work.

5. Test the game as a whole



Run a full playthrough of your escape game. This is essential to check how everything fits together, how the story flows, and how long it takes.

6. Check flow and duration



Are the enigmas well-connected? Does the game fit within your planned time frame? Adjust puzzle content or sequence if the pacing feels off.

7. Repeat the creation loop if needed



Iterate as many times as necessary. Improvement through testing is part of the design process, not a setback.

8. Prepare the Game Master role and support documents



Create clear instructions, clue-giving guidelines, and a facilitator script or checklist. Ensure someone running the game can support players without giving too much away.



Support for future developers: Following this structured process helps ensure your game is not only creative but also functional, accessible, and educational. It teaches developers the value of testing, reflection, and iteration – key skills for any game designer or educator.

Where can I have additional support?



A complete library:

- [SpeakER EU project](#)

An enigma generator:

- [SteamER EU project](#)

SpeakER



Pedagogical guide



Tool pack
Resource pack
Inspiration pack
Conception framework



Enigma page



A guide on animating pedagogical Escape Rooms for language education



Scenarios

STEAMER



Pedagogical guide



ER creation guide



E-learning module



Scenarios and lessons packages



Steamer generator



Implementation practice guide

... and of course: us 😊

Next steps and available resources



Participants were provided with guidance on the next stages of development:

- Testing and iterative improvements.
- Integration of technology and multimedia (if applicable).
- Documentation and packaging for implementation.
- Access to shared resources, including templates, tools, and reference materials.

Participants feedback

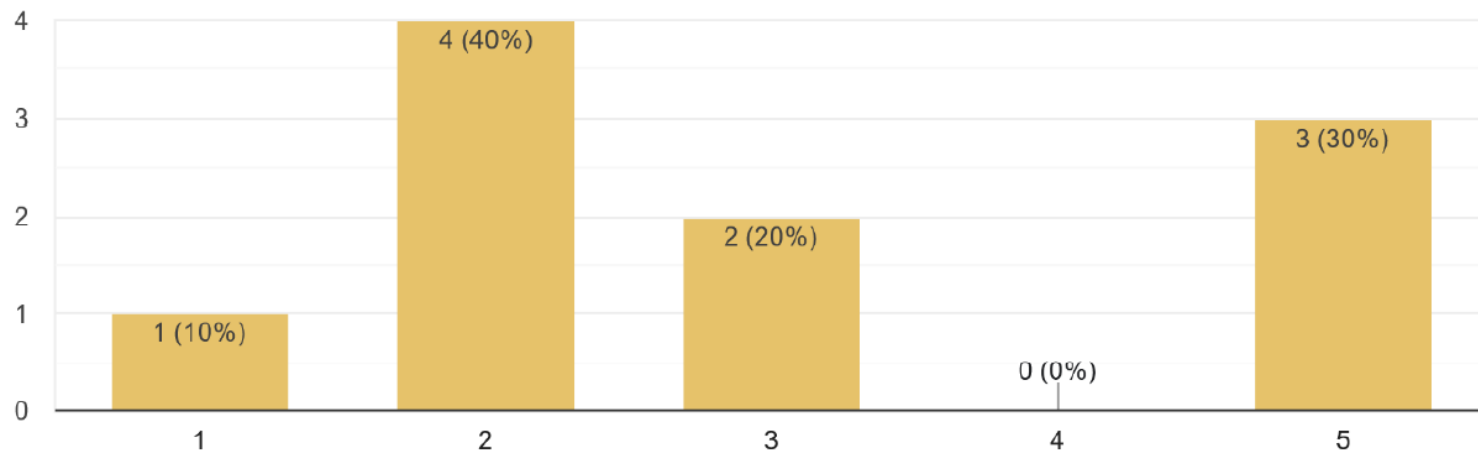


Participants shared their insights and takeaways from the workshop:

- **Increased confidence in ER design:** Many participants reported a greater understanding of escape room mechanics and how to structure their puzzles effectively.
- **Appreciation for the structured approach:** The step-by-step methodology was well received, helping break down complex tasks into manageable stages.
- **Networking and collaboration opportunities:** Attendees valued the chance to connect with peers, exchange ideas, and explore potential collaborations.
- **Need for further support:** Some participants expressed interest in follow-up workshops focusing on specific aspects, such as digital tools for ER development and advanced puzzle design techniques.

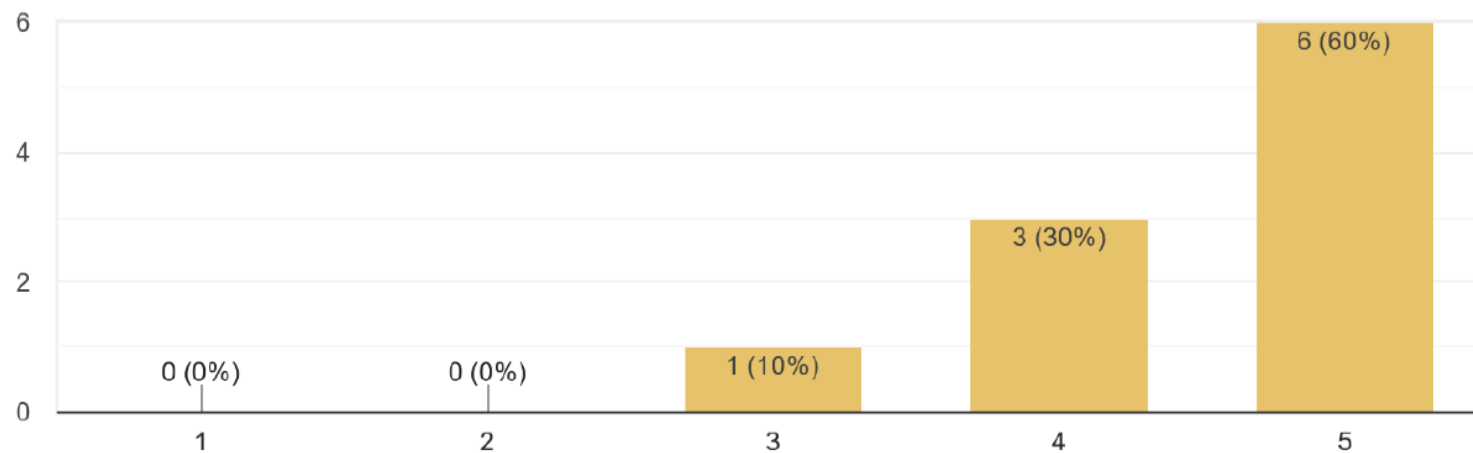
How much did you know about escape rooms and their creation before the workshop?

10 responses



How much do you know now about escape rooms and their creation after the workshop?

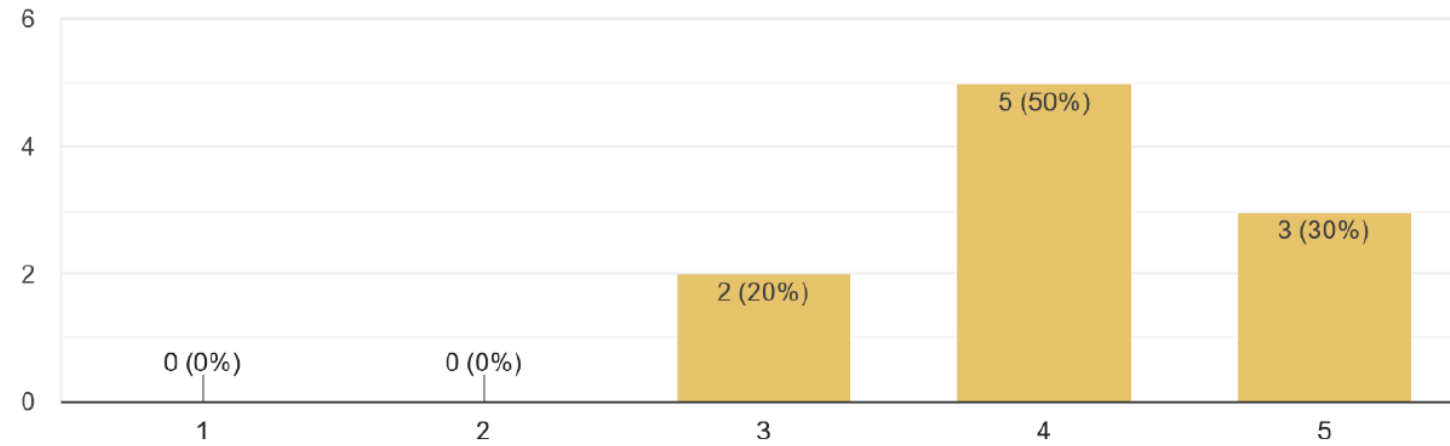
10 responses





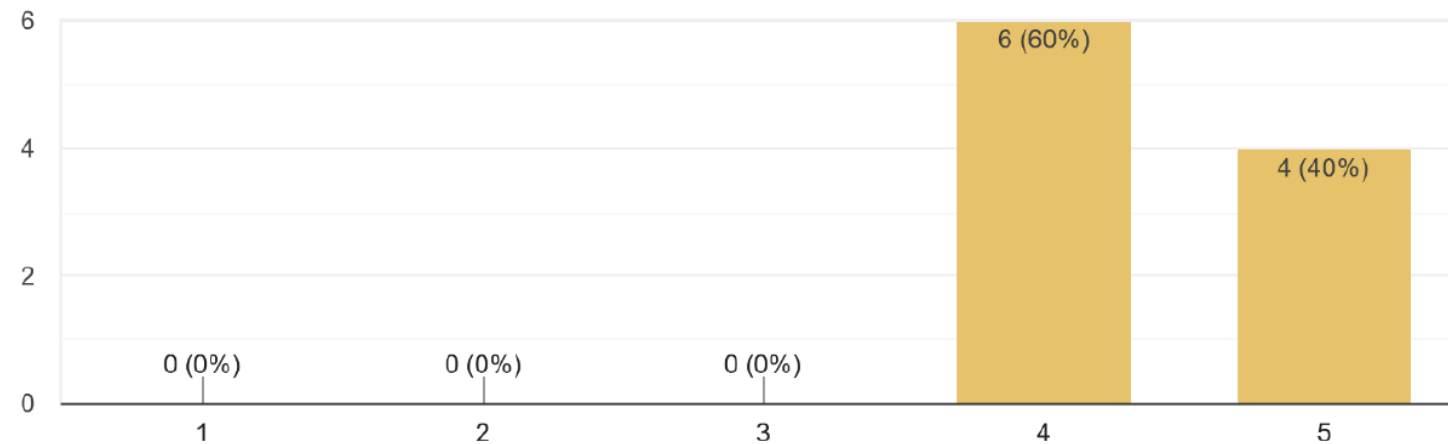
How confident are you in your escape rooms creation skills now?

10 responses



Were the workshop educational goals clear?

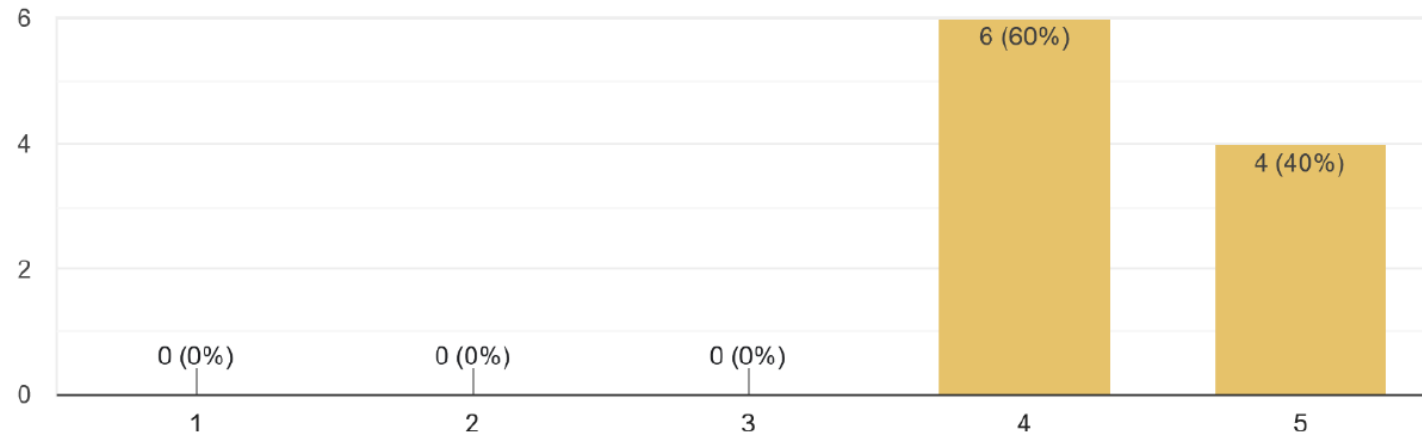
10 responses





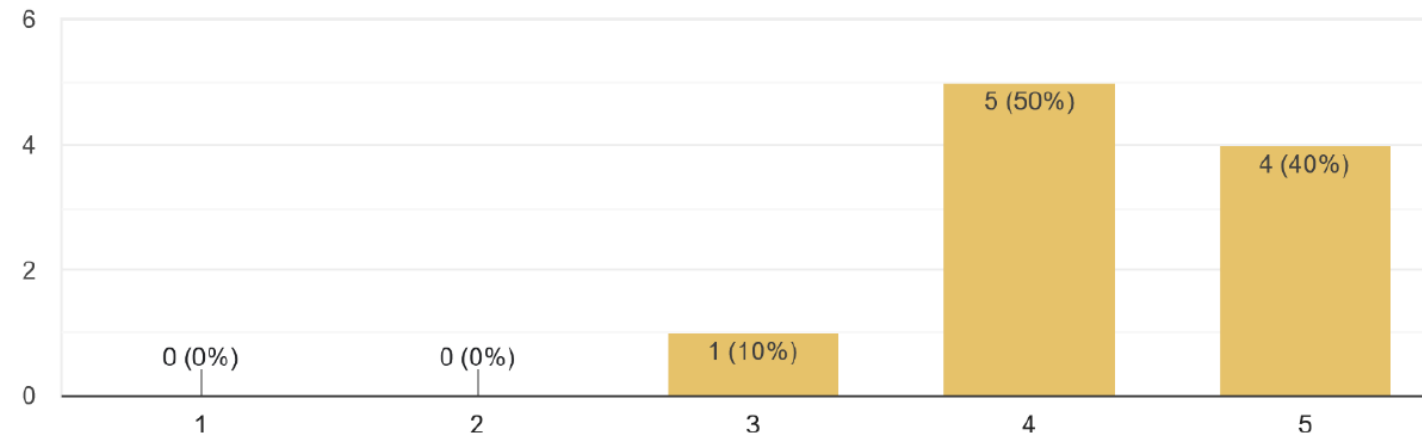
How would you rate the quality of the content?

10 responses



How would you rate the workshop organisation and the explanations provided?

10 responses



Participants' comments



“First the possibility to try an Escape room game in the style of Board games. Before I had tried only real-life Escape rooms, but now I have a greater understanding. In addition, instructions on how to create a game gave much needed insight.”

“Working on concrete cases to set up for second batch creation.”

“Clear step by step creation process, well organised materials and resources available; concrete steps to start ER creation.”

“Greater understanding of enigmas and how to write them”

“The exploration of escape game structures and testing of actual escape games, especially for people who have never tried them before.”

“The practical experience and the opportunity to better understand the elements and characteristics of escape rooms that should be taken into account in the process of their development (what consequences each of them has and what interrelationships with the others) testing the games”

“Maybe I would given time to create an Escape room from the beginning. This way, it could be a good practice for everyone who never created a game. As after training, we went to make games in our topics, but I believe we needed to make a full game creation in groups to better understanding.”

“All partners should have reviewed the first batch escape games to make the most of the workshop. We adapted and consolidated the basics of escape game creation.”

“A more practical step-by-step tutorial on the structure of an escape game and a series of clear examples of enigmas and how to create them would've been great. Also, testing an escape game that's more similar to what we aim to produce during this project, considering the ones we tested are way more complex and detailed.”

“It would have been interesting to have some worksheets we could use in the second phase as guides to know where to start from when developing the games.”

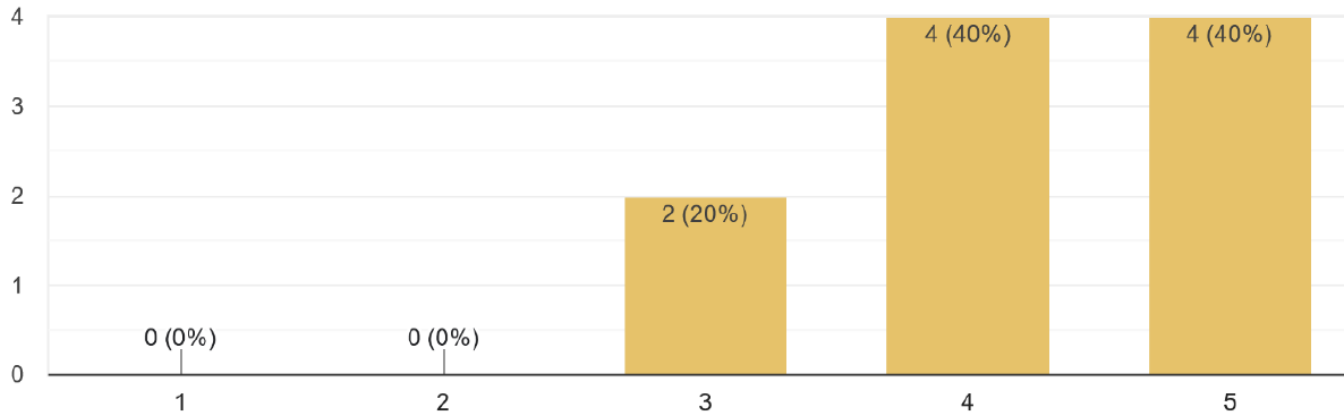
Conclusion



The workshop successfully equipped participants with the foundational knowledge and skills needed to develop educational escape rooms. The structured approach to puzzle design, combined with hands-on activities and peer feedback, provided a robust framework for ongoing ER development. Future sessions and resource-sharing initiatives were suggested to support the continued growth of participants' projects.

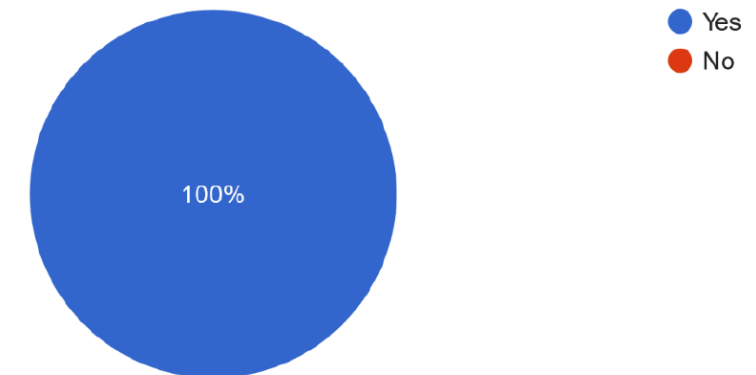
How satisfied were you with the workshop in general?

10 responses



Would you recommend the workshop to your colleagues or peers?

10 responses





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Thank you for your attention!



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