SpeakER

Framework and Roadmap for Escape Room Creation in Language Education

Here is a small reminder

In this project, it has been decided to divide the game's elements into different categories: Mechanisms, Enigmas and the Scenario.

» **The Mechanism:** is the most basic action you can perform in the game. (i.e: put 4 digits in a locker to open it, find an object under a carpet, sort books by references…)

» **The Enigma:** is the result of some combined mechanisms. Sometimes, it could be hard to consider when an enigma is over and when the next one starts. But it is important to cut your ER into different pieces otherwise it might be difficult to track the players' progression or to improve it. (i.e: find a key under a carpet > open a vault with the key > find 5 books > sort them by references > the picture on their combined cover gives a clue for another enigma)

» **The Scenario:** is made of the enigmas. Once you test your scenario and validate it, you can call the result an Escape Game

```
                        Scenario

        Enigma 1                      Enigma 2

   Mecanism   Mecanism      Mecanism   Mecanism   Mecanism
      1          2             3          4          5
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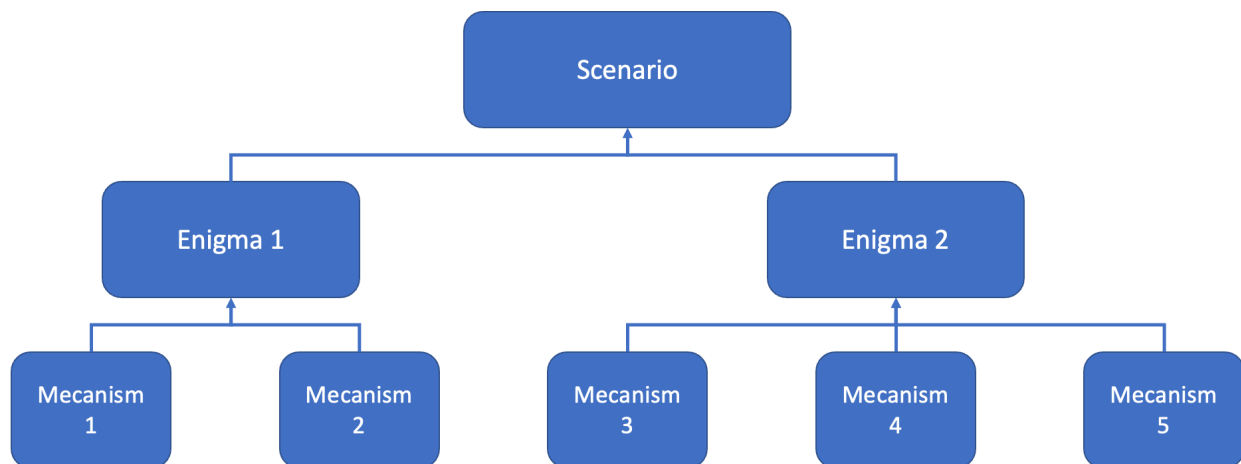
For more information on the structure of Escape Room creation, do not hesitate to look at the Resources Global roadmap, Diagram or the Booklet "ER and languages a perfect match" available on the SpeakER project's website.

A pedagogical Escape Room has a different design process than a commercial one as the whole game is constructed around the pedagogical objectives set by the designer. The goal of this type of Escape Room (ER) is to foster the acquisition of skills and knowledge. Here are some tips on how to structure your ER creation process in order to implement its use in language education.

Setting the goals

In order to set goals for your pedagogical Escape Room, you will need to answer the following questions. Your answers will then help guide you on what you want to use the ER for, and prevent you from straying from the subject when creating the enigmas and scenario.

» **What will you use the ER for?**

This question focuses on the final purpose of your ER. You could use it to assess your students' performance in an immersive environment or to introduce a new chapter of your course to them. Here are some suggestions:

- o To practice previously learnt material (using knowledge not referenced within the room could be tricky. You can find more details on this topic in Tool sheet about "Out-of-the-room knowledge")
- o To discover a new unit of your curriculum
- o For a formative assessment of your student's knowledge and skills Formative assessment means that you use assessment during the learning process in order to improve the activities and keep track of students' progress.
- o As an extracurricular activity
- o As a cross curricular activity
- o As a way to assess how students respond to non-traditional "active" approaches to language learning

» **What chapter or topic of your course will you use in the ER?**

To answer this question, you will need to focus on your lesson plan or curriculum. In each learning unit, there are language topics as well as thematic areas and elements of Cultural Heritage. The answer to this question will then lead you to the following three questions:

**»   What language skills will the participants develop thanks to your ER?**

According to your final goals and the chapter of your course that you will explore in the Escape Room, certain language skills will be developed. Before the creation process, you should set some clear goals for this as well.

»   What soft skills will the participants reinforce in your ER?

By 'soft skills', we mean those that are useful not only in a language course, but those that are transversal and important throughout the students' training and professional development, as well as personal growth, from a pedagogical standpoint. A few examples would be: creativity, communication, collaboration and critical thinking.

»   What knowledge will the participants acquire thanks to your ER scenario?

The topic you choose to tackle in your Escape Room will help you specify the knowledge you expect your students to acquire at the end of the experience. A few examples could be knowledge of vocabulary and grammar concepts, or elements from the Cultural Heritage of the language you teach.
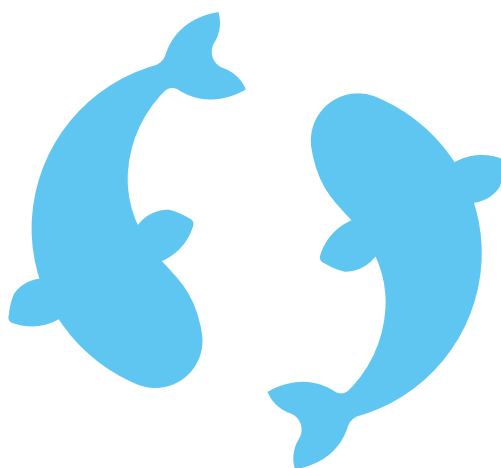
Setting the practicalities

After establishing the goals of your Escape Room, you will need to set the practicalities in order to keep the enigmas and scenario feasible and manageable. This stage will help in getting a better view of the ER features you will use in your design. Here is a list of questions to help you build your experience practically:

» **How many students will be involved in your ER?**

According to the number of students involved, you will need to split them up into different groups and divide the classroom space to make sure each group has a successful and distraction-free experience.

» **What is the age of your students?**

The age of the students can make a big difference in terms of the complexity and the formulation of the enigmas and scenarios. It can also influence the choice of topics and references as they can be very age-specific.

» **What is the proficiency level of your students?**

The age and level of your students might vary from one class to another. Some teenagers can be beginners while others could already have an advanced level. This means that you will need to adapt your ER experience to their specific level and select chapters of your course that are the most suitable for their progression.

» **Are there any students with specific needs?**

Students with specific needs can easily be included in the ER activity by applying simple adaptations to the content. It will be very important to keep their needs in mind at all times while creating the experience to foster their full participation along with their classmates.

» **What will be the format of your ER?**

There are different types of Escape Rooms. We often picture the locked room from which players need to escape, but there are other possible formats to choose from:

- o Book
- o Virtual ER
- o Escape box
- o Cards
- o Breakout box
- o VR

» How long do you want the ER to last?

The duration of your ER will influence all its other aspects as it will help you determine the number of enigmas you want to include and the complexity of the scenario. Most escape games last between 45 and 60 minutes. The minimum duration would be 30 minutes, and the longer ones rarely go over 75 to 90 minutes. We would not recommend you to go over 60 minutes as it would require a lot of content and planning, and students might start to lose their focus or temper at some point.
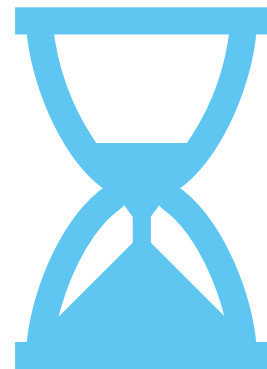
Note that we are talking about the duration of the escape room itself: we do not take into account the preparation and/or installation time, briefing before the activity nor the debriefing afterwards.

» **What is the context of the ER?**

The context is a general theme around which you will create your ER. It is not yet a precise scenario but more of an idea to guide you in the following steps of the game design.

» **According to the chosen context, are there certain kinds of mechanics you can and cannot use?**

A game mechanic is an independent element that you combine with others to create an enigma. According to the context you have chosen for your ER, some game mechanics will appear to be more relevant and easier to implement than others (for example, you probably won't use a QR code that players will have to scan with a smartphone if the game is set in a medieval scenario). This process is the first selection of the mechanics, but you don't need to create any enigmas yet.

» **How will you organize the space in the classroom?**

As you will need to divide your students into different groups, you will also need to create one space for each group to have a smooth and distraction-free experience. This can be easily done by defining smaller "rooms" in the classroom with the students' desks or chairs, or by putting marks on the floor with colored tape.

» **How will you as a Game Master deliver messages or communicate with the players?**

The Game Master plays a crucial role in ensuring that the experience goes smoothly. As a Game Master, you will direct students in the right direction when they are stuck or help them overcome a decisive mistake that would otherwise prevent them from achieving the final goal.

Conception

As all other forms of creation, creating an Escape Room is not that simple. After setting your goals and your practicalities, you know your destination. But the conception process will be a loop:

1. You will first create a draft of your structure
2. Then decide on the enigmas you know you want to include in your game* and design the scenario (more or less at the same time)
3. Create a roadmap to see if everything looks coherent and smooth

Get back to your (draft?) structure to modify any mistakes. When you are happy with your work, you will organize a test that will give you external feedback on the experience you created. Most of the time, this will highlight some elements to adapt and you will get back to the previous conception loop to fix them. Otherwise, congratulations: you have a usable pedagogical Escape Room for your classroom!

» Create a first diagram to visualize your ER

At many stages of the creation, the creator needs to have an overview of the whole game. Having a diagram that references the flow of the ER is an indispensable tool to avoid most of the traps of the game design.

The diagram is used only during the conception. It has to be convenient for you and your creation team: it is not necessary to make it detailed for others.
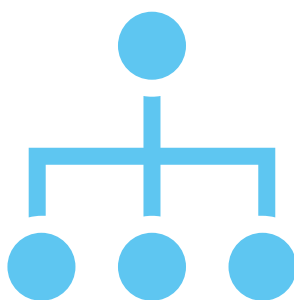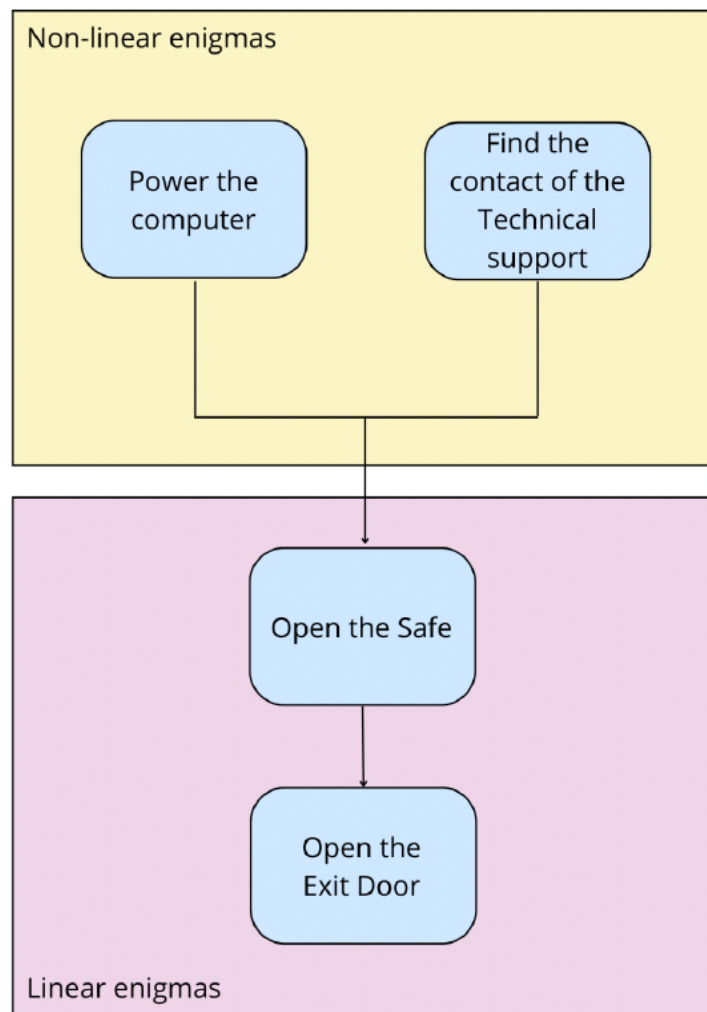
a) Why think about the template first

The template can be different according to the structure you choose. There are different types of structures for an Escape Room:

- o **Linear:** one enigma at a time that leads to the next one
- o **Non-Linear:** multiple enigmas can be done at the same time
- o **Mixed Linear or Non-Linear:** a mix of both of the above structures

Non-linear enigmas

Power the computer

Find the contact of the Technical support

Open the Safe

Open the Exit Door

Linear enigmas

You can also think about different aspects of the game design, such as:

- o **Red Herring:** a game with distractions and fake clues
- o **Scavenger Hunt:** players need to search for the elements of the enigma
- o **Global mechanic:** Depending on your environment and the context of your ER defined in the practicalities (see above), you can also use a mechanic as the global setting of your ER. (see the tool "Roles" for an example)

You can see examples of these different structures in Tool sheet about diagrams.

b) How to imagine and draw the diagram (according to the practicalities)

According to the structure you chose, you will draw different types of diagrams. You can of course use different structures together and be creative at will. You can see different examples in the Tools sheet about diagrams.

As the creation process is up to you, you can begin by creating a first draft of a scenario or enigmas first, depending on what you feel more comfortable with.

» Create the enigmas

Once you've created a framework/outline of your ER scenario and enigmas, it's time to focus more closely on which enigmas can be used to reach the established goals.

First set the global flow of your enigmas:

How many enigmas will you design?

The number of enigmas is of course linked to the duration of your Escape Room but will also influence the complexity of your whole game experience. If you plan on creating an Escape Room with a high level of difficulty, we advise you to reduce the number of enigmas to make sure the final goal can be achieved on time.

How will you link the enigmas to your course?

The link between the enigmas and the course might not be easy to establish naturally. Therefore, we advise you to think of the game mechanics that you want to use in the enigmas and to imagine how they could be linked to your curriculum.

If you'd like to see some examples, you can explore the enigmas created in this project on our website www.speakerproject.eu.

What tools do you have in order to create those enigmas? (printer/makerspace/…)

In order to design the enigmas, you will need to make sure that your ideas are achievable in practice by using tools at your disposal or those easily accessible to you. This is the first step in the evaluation of the final cost of the escape room.

What will you do when your students are stuck (Game Master actions)?

Of course, we hope that your students will all find the answers thanks to their collaboration skills and peer learning. However, experience has shown that players tend to get stuck sometimes and will therefore need your help in finding their way to the next clue.

Then, you can work on each of them independently:

What are the elements to solve this enigma? (clues/codes/keys…)

You can find a list of suggestions in our Creation Box. We have provided a practical description of different tools, resources and inspirations that you can use in your experience as an Escape Room creator.

How will players get these elements?

Of course, once you choose the elements you want to use in your game, you will need to think of ways in which you could present these elements in your classroom. Now that you know how many students you will involve and how you will set up the space in the classroom, you will get a better idea of how to display the elements that students will use to solve the enigmas.

How many players are required to solve it? (example: multiple manipulation)

As students will need to manage their time and collaborate to solve enigmas, each enigma can be designed to require the collaboration of a definite number of people. The whole team doesn't have to be focused on the same task, they can manage their work and time as they wish and according to the complexity of your enigmas.

What do you need to consider when crafting this particular enigma?

An Escape Game could take various forms such as a book, a tabletop game or a live action game. From the layout of your documents to the development of an IT device, creating enigmas could require different skills. We recommend not limiting your enigmas to your own skills: do not hesitate to include your

colleagues (for example by creating a project for an IT class to develop a specific mechanism), or a makerspace!

It is also possible to use your project to create an Escape Room as a project for students in technical studies. It is a great opportunity to make a group of students work in a concrete project, to dispatch it into multiple steps with tests phase(s), and thanks to project-based learning.

» Write the scenario

After you have decided on the objectives and settings of your Escape Room and established the game mechanics and enigmas that you will use, it is time to build the scenario:

When will the ER scenario take place?

The scenario will be based on the theme and context you have already defined for your Escape Room. The period in which the scenario will take place depends on these elements and can set the mood of the ER.

Where will the ER scenario take place?

The place in which the scenario is set also depends on the aforementioned elements and will ideally be a place where the taught language is spoken. According to the time and place of the scenario, you will be able to decorate and adapt the design of your Escape Room to create the most immersive experience possible.

What elements of Cultural Heritage will you use in your scenario?

As you will teach a language through this game, the cultural elements of the country or countries where it is spoken can play a great role in understanding specific concepts and idioms. The whole scenario can therefore also be based on the elements of Cultural Heritage you will decide to integrate in the game.

What characters will be present in your scenario?

The characters in the scenario are crucial for it to feel more believable. For a language course, these characters could be famous people who were alive at the time and place set for your Escape Room. Of course, these characters don't need to be physically represented and can simply be the authors of a letter, the speaker in a radio interview or any other role related to your enigmas.

What tools and decorations will you use to set the scene?

Now that you have all the contextual elements in mind, you can proceed to decide on decorations and tools that you will use to improve the immersive aspect of your game. Here is a list of elements that you can consider:

o Timer, which can change according to the theme

o Decorations in the room to set the ambiance

o Music or sound effects

o Costumes

o Other

How will you introduce the scenario to your participants?

The beginning of the Escape Room experience starts with a presentation of the scenario. Students need to know about the key elements of the story and have a clear understanding of the game's purpose. You can present your scenario in different ways, such as:

o Oral explanations and guidelines

o Video presentation

o Text document (letter, newspaper, other)

o Several options of the above

How to adapt an enigma to your scenario

Now that the scenario is better defined, you can adapt the enigmas you created in order to better fit the story, time and place of the scenario. You will see different suggestions below:

o   According to the time period

   ▪   With parchment, old newspaper, a tablet from the future, etc.

   ▪   With values from the past, events from the past, etc.

o   According to the place of the scenario

   ▪   With pictures of the place

   ▪   With a local newspaper, magazine, etc.

o   According to the characters in the scenario

   ▪   With famous people of that time and place

   ▪   With typical names of that time and place

o   According to the plot of the scenario

   ▪   With clues from a murder, an espionage mission, etc.

   ▪   With a logical chain of events

» Roadmap & Track form of your ER

The roadmap and the track form are two sides of the same coin:

Roadmap

The roadmap of your ER is a vital tool for your creation task, but also for your role as Game Master.

During the creation, it will allow you to evaluate the duration of your ER and see if you have to add or remove enigmas.

As Game Master, it will allow you to keep track of your players' progress on their journey. It will also allow you to deliver clues at the best time:

- o giving them too early will make the experience less challenging, too easy and less immersive
- o giving them too late runs the risk of letting players get stuck on a loop and get frustrated

Track form

The track form is only useful for the Game Master. During the game, you follow the progress of your players with the roadmap but you also have to prepare the debrief at the end of the ER. The track form is basically a list of your enigmas with enough space to take notes that could allow you to give personalized feedback to your players after the game.

It could take any shape that suits you, such as a text document, a spreadsheet… Feel free to make it according to your own work habits!

How to create a roadmap? (refer to the Diagram and Enigmas for duration expectation)

As you've created a diagram for your enigmas, you can make estimations about the duration and timing of the whole Escape Room. More explanations in the Tool sheet about Roadmap.

» Test & debug the ER

When you arrive at this part, you can consider that you have done 30% of the work. Testing is maybe the longest part of the creation task because creating a successful game from scratch on the first trial is nearly impossible. There will always be things to adapt, timing to change or elements that do not fit the scenario… and we can only identify these by testing the game on many scales.

a) Why is the testing phase so important?

Testing your game before implementing it in class will allow you to spot the elements that could hamper the good functioning of the experience. This step is crucial in order to identify the parts of the game that could still need some work.

b) What are the different types of tests?

Test your mechanics

By listing and testing all the mechanics of your game, you can ensure that all of them are solvable independently. This is mostly to check the technical aspect of your enigmas such as: is your device or locker working, does the shape of a form fit the hole...

The resolution of problems (enigmas) & pedagogical aspects

Your mechanics could work independently, but making them work together could require some adaptations. Why? Here are some good examples of what happens when mechanics do not function compatibly:

https://danielhall.io/what-about-unit-tests

This is also the time for you to evaluate whether the enigmas suit your pedagogical goals and follow the structure, settings, and the diagram that you have set at the beginning.

The flow of the full ER

In order for the creation of the ER to meet its goals, you should test the ER to check several things:

o   Is it feasible to complete in the duration you expect?

o   Is it feasible according to the inclusiveness requirements you've set?

○ And last but not least: is it still fun?

As explained in the first booklet of this project, titled "ER and languages: a perfect match?", the aim is to keep students motivated thanks to the gamification aspect of this tool.

It is also important to train yourself to master your ER, to be able to sense when you have to provide extra support to your players.

c) Prepare the test

Here are some recommendations on how this can be done:

Create a form

When you ask subjects to test something, it is important to guide them through the test. But also, allow room for testers to provide you with new elements for the game: testers always offer ideas and solutions that the creators did not think about.

Select the test teams

It is important to have different tester profiles: experts will be a great help on mechanics and details, non-players will allow you to have alternate advice and perspectives. Also, mixing different tester profiles inside the same team will allow you to see how a heterogenic group could interact during your ER.

d) Review of the test

Once you have tested all the material, do a quick review and prepare your modifications accordingly. As you will have evaluated different aspects of the ER, you can make a checklist of points to change before you proceed to updating your ER.

e) Update your ER & your roadmap

Once you have gathered all the elements that need to be changed, you can proceed to updating your ER and roadmap to reach the final version to be used with your students.

Debriefing

The debriefing is the final step of the ER. You can gather the students in a circle, shortly discuss the ER experience and help them draw conclusions from this engaging experience. Difficult puzzles can be frustrating for some players, so this serves as an important stage to have a better overview of the experience, independently of the pedagogical usage of the ER.

In addition, you could also send a more complete questionnaire to your players after the sessions to evaluate their knowledge and/or their appreciation of the gameplay experience itself.

» **Why a short debrief is important**

The debriefing is essential to have your students reflect on their experiences and share their thoughts, doubts, feelings and difficulties. This step allows you to have external feedback on the game you created and also makes the students think of their own performance and skills after the game.

**» How to use a track form alongside the roadmap as reference**

As the Roadmap is made to follow the progress of your players in the game, the track form lists the enigmas and allows you to make note of different aspects of your players' experiences.

- o Which player took on which task?
- o Relevant actions
- o Were players on time or late?
- o Recommendations
- o ...

» How to keep track of the game

These are a few examples of questions that you could ask your students in the debrief:

- o What role(s) did you play in the team?
- o What were the most challenging moments of the game?
- o What were the most satisfying moments of the game?
- o Can you think of a way in which certain aspects of the game could be improved?
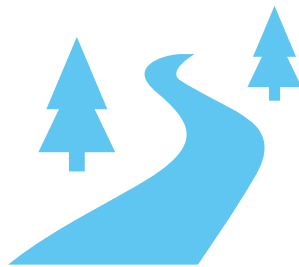
» **How to organise the debriefing (avoiding conflict, position of the teacher in the discussion...)**

The debriefing can last between 5 and 10 minutes. It should be organised shortly after the game to make sure the experience is still fresh in the students' memories. Immediate debriefing and feedback can be a great tool to engage students in the learning process.

After the game, players could be very excited, so as Game Master, you will have to structure and lead the conversation. Here are some recommendations:

- o **Let players give their impressions first:** giving your feedback at the start will force your point of view on the players
- o **Kindly invite (but not demand) shy or beginner players to talk first:** their feelings have the same value as expert players, but they could be intimidated to share their thoughts after an expert player.
- o Competitive players could monopolize the discussion; therefore, **it is important to make sure everybody has an opportunity to express themselves**.
- o **Take notes** on how to improve your ER and give value to the players' feedback

Do not forget to **thank your students** for taking part in this immersive and engaging experience.